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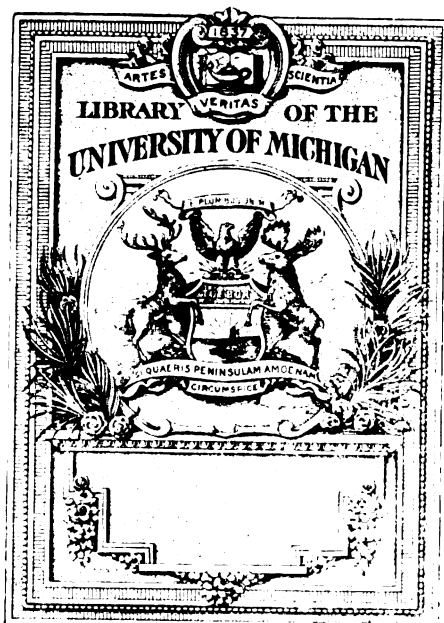
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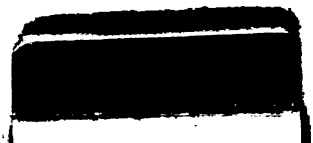
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ATLANTA Medical and Surgical Journal.

VOL. XVI.]

APRIL—1878.

[No. 1

Original Communications.

BOTANY IN ITS RELATIONS WITH MEDICINE.—5.

BY W. T. GRANT, M.D., ATLANTA, GA.

Every one in eating an orange, or lemon, or pomegranate, or a slice of watermelon, must have observed in the pulp of these fruits the small, egg-like bodies containing the juice peculiar to each, and constituting the bulk of the fruit. These small bodies are specimens of the vegetable cell. All vegetable cells are essentially the same, whatever their position in the plant; that is, they all have two coats, one just within the other, and containing some one or other material, according to the purpose of the cell.

I will illustrate the cell with the common hen's egg. The egg-shell is the common outer coat of the cell; the thin membrane just inside the shell (which every one has seen on the hard-boiled egg) corresponds to the inner membrane; while the white of the egg and the yolk are simply the analogues of the contents of the cell, whatever these contents may be.

The vegetable cell is nature's great laboratory. Within the cell take place all those wonderful chemical operations of decomposition and recomposition, by which are produced all the various vegetable products. The vegetable cell, therefore, is the factory into which is carried the raw material, and wherein is generated from this material all the food of all animated nature, as well as the poisons and medicines and various other products obtained from or found in plants. The various elements of the mineral

kingdom, both simple and compound, enter the vegetable cell as such; and by some inscrutable power, not now understood, they are variously combined and recombined, so that in a short time they have wholly lost their mineral character, and have become organized proximate compounds, having organization, and often endowed with vitality. All these wonderful changes take place in the vegetable cell. Hence, we are authorized to say that the opium of the poppy, the turpentine of the pine, the sugar of the beet and the cane, the quinine of the cinchonas, the starch of the potato, the gluten of wheat, and the thousands of other products, are generated or created in the cells of these various plants. And these cells, after a time, become filled with such products, each with its own particular product; and thus these products are retained and held in the cells where they are generated.

I will now call attention to two very important points of differences between vegetable and animal physiology, in this connection. In plants there is no such thing known as the "waste or effete material," which constantly enters the blood of animals as the result of various changes taking place in the tissues. Nor is there anything in the plant to correspond with it. The second point of difference is as follows: As the opium of the poppy, for instance, is produced in the cells, and as this act in the plant is the exact analogue of secretion in the animal body, we see that, while the secretory organs or glands in the animal are conglomerate, in the plant they are just the reverse—that is, diffuse; and thus we understand how it is that the peculiar product of the plant is scattered through the entire plant, because its secretory gland, consisting of simple cells, each performing its functions, is diffused as cells through all parts of the plant, and are not gathered together in one place as in the animal.

My purpose in what I have said above is now attained, which was to show how our quinine, opium, and other vegetable medicines, originate. They are as essentially secretions as are bile, or saliva, or urine. Another important point in this connection is this: That while all the animal secretions are produced from the "waste or effete

material" of the body, and consequently participate in the degraded character of this material, which is in one stage of progressive degradation from a higher to a lower condition, the secretions of the vegetable is in the opposite condition—that is, they occupy a place in a progressive or advancing series of changes from a lower to a higher condition.

I cannot say that the thoughts now suggested are at present of much value to the physician or therapist, but I believe it is well to note them, as they will very certainly, at some future time, form a very important item in the progress of therapeutics, and consequently in the practice of medicine.

For some years past it has been a favorite opinion with me, that every medicinal plant that grows *has some physical and visible character, or combination of characters, which will indicate that it does possess such medical virtues*; and that the same physical characters, or certain others, will indicate what SPECIAL KIND of virtue it possesses. If this proposition could be established, then our great object as medical botanists would be to determine what characters would serve this purpose as indices. I have no hesitation in saying that our present botanical classifications would not afford the least aid in such a work. And it will be necessary for botanists, who shall at the same time be physicians, to go over again the entire field of practical and descriptive botany. As evidence of the truth of what I say, I state that in present classifications the deadly nightshade (*solanum nigrum*) and the common sweet potatoe (*solanum tuberosum*) stand to each other in about the same relation as brother and sister; and other similar examples can be given, as in the genus *rhus*. Here we have the *rhus glabra*, or old-field sumach, an innocent plant, in immediate relationship with the *rhus toxicodendron*, or as it is commonly called, the poison-oak vine, a very dangerous plant.

It may be thought that this would be almost endless work to thus go over the entire field of descriptive botany, and take a new and exhaustive description of all plants. But that is not so. And if it were far more laborious than it will prove when tested, that very fact furnishes another

strong argument in favor of the proposition which I have been urging for some years, that our medical colleges should each establish a chair of botany, so that their graduates may aid in this good work. And, as evidence that I am not exaggerating the facilities which I speak about, I have no hesitation in saying that I can take any man with ordinary abilities, and a fair education and in one-year's time I will make him a good, fair practical botanist, fully competent to pursue the study without further aid; and this can be done without losing much time from any of the ordinary pursuits of life. How much easier then could it be done with students who are giving their whole-time to the acquisition of the profession of medicine?

I will quote the following paragraphs from an article which I published some years since on this subject, as I do not think I can express the ideas in better form:

"If we were in the woods, and find a strange plant which has attracted our attention, how shall we know whether or not it is poisonous? Or whether it is a valuable or a worthless plant? I have not the least doubt that there is some arrangement of some of its parts which would tell us, if we could only interpret them correctly. The particular plan or color of the flower; the arrangement of the leaves; the number or form of the stamens, or petals, or pistils, or indeed any one of the infinite variations which any plant may exhibit, would be to us the desired index, if we could but read it aright.

"The variations among the physical characters of plants are nature's landmarks. And the very *least* variations, even of form or color, has a purpose, and *may* possess a value not now dreamed of in our philosophy. There is a beautiful net-work of laws interwoven through all plant life, and comes far more closely in contact with the rough exterior physical characters of plants than we imagine. Indeed, those physical characters are but the outgrowth, or outward manifestation of interior laws. These physical characters thus become the alphabet of plant life, or rather of vegetable therapeutics; and if combined into words and sentences, will constitute the language in

which nature has written these laws. And if we can but learn to read it, we have before us in every plant we find, a manuscript wherein we may read clearly and distinctly, some of nature's profoundest secrets. And in these indices we may become possessed of the key which will open to our view the entire field of vegetable therapeutics, and the practice of medicine would become simply the application of a few plain rules, and we could foresee the course to pursue in any given case, as surely as we now do in working out a sum under the rule of three.

"To determine the different indices and their value, will require in an investigator an accurate knowledge of practical botany, together with a thorough knowledge of physiology and therapeutics. A botanist, however well informed he may be in botany, is not properly prepared to study this subject. It thus appears that the study of botany should be combined with that of medicine before we can have properly prepared investigators in the field. Consequently there is an absolute necessity that there should be a chair of botany in every medical college."

In conclusion, I will offer some suggestions to those who may take an interest in these subjects, which I think I have before published, but am not certain. These suggestions must be taken as true in a very general sense, and necessarily have more or less exceptions. I offer them as problems requiring solution, rather than definite truths.

Any plant having an umbelliflorate inflorescence is dangerous, and generally drastic in its effects.

The powder in the common mushroom, known as the puff-ball, is said to be a powerful and instantaneous styptic.

The excessive use of starchy food is said to injure the eye-sight.

Is it not true that the food produced in any country is better suited than imported food for preserving the health and vigor of the inhabitants of that country?

Is it not also reasonable to believe that every country produces an antidote for every disease which is native to the country?

An indefinite increase or multiplication of any part of a plant is an evidence of safety; *i. e.*, the rose, which has an indefinite number of petals and stamens.

Coffee is said to be a very reliable antidote for strychnine, and has cured dogs poisoned by it.

Plants in which the color of the flowers is not single and uniform, and which therefore varies, are innocent.

Plants having bulbous, cormose or rhizomatose roots are generally violent in their effects. Fibrous rooted plants are not generally very active, unless they have some irregularity in the flower. Coraline, sub-ærial, tuberous and tap-rooted plants are usually innocent or mild in their effects.

PROSTATIC DERANGEMENT.

By R. W. WESTMORELAND, M.D., WASHINGTON, ARKANSAS.

Hypertrophy of the prostate is an affection troublesome to young people as well as old. The question of its degenerative character, or of its being the result of exciting causes, has very great bearing in deciding upon treatment. There is no doubt but that the affection is from distinct causes, and the object mainly sought after in attempts to cure, should be the removal of these causes. Thus in lithiasis we may have a condition of the urine suited to the production of the irritation in the genito-urinary apparatus sufficient to excite the prostatic trouble. Forms of local congestion or inflammation may give rise to very serious prostatic derangement, as is evidenced in cases originating in excessive venery, suppression, under certain circumstances, of the dermoid function, and horseback riding.

It should ever be the practice, in treating these cases, to search out the origin, and instead of always "poking" at the seat of trouble, remove the cause, and but little more will be necessary to relieve the patient. Gross has thus advised in the treatment of cystic irritability, and the words are very appropriate to the subject of this paper:

"In entering upon the treatment of this complaint, so protean in its character, a strict inquiry should, in every instance, be instituted into its origin, which, as has been already seen, may be either sympathetic, nervous, conges-

tive or inflammatory, and the practice regulated accordingly; otherwise, the physician will only be likely to harass his patient and employ means which can lead to no beneficial result."

The direct sympathy existing between the bladder and gland renders it a very difficult matter, at times, to decide which is primarily affected, and whether the one or the other is affected by some originating cause. Like in diseases of the liver and stomach, we are very often at a loss to decide whether sympathetic or primary disturbance exists in the one or the other. This is a difficulty of very little importance, however, since exciting causes affecting the one redound to the detriment of the other, and removing the cause will very often cure both without much further trouble.

It is in the aged, particularly, that we are most often called on to treat this difficulty. We will have them complain of a burning, scalding sensation while urinating. They are affected by a certain amount of strangury, or, at times, with incontinence. All these symptoms may alternate in the same patient, and be temporarily aggravated by measures or remedies having a direct exciting tendency on the genito-urinary apparatus. Thus the administration of cantharis, either internally or as a blister, has a very decided effect in that direction.

Then, too, you find many enthusiastic specialists, whose principal recommendation is their fervor, with the idea of "incipient stricture" fixed in their mind, "job" away at the congested and irritable neck, in their vain endeavor to find even a minute variance in the calibre of the canal. Such a case I once knew of a printer, who came under my notice, after being "poked" at by a "stricture specialist," when he had nothing more than enlarged prostate and cervical irritability.

The incidental symptoms, such as spasmodic stricture, etc., amount to very little, unless unusually prolonged, as ordinarily they are of temporary character. Rectal suppositories will ameliorate them until the grand object of treatment, removing the cause, has been accomplished.

The rule is, then, that we may always expect to find

some exciting cause for the affection, and we should never pronounce idiopathic that which may be found to be due to a distinct and separate disturbance. Should we be led to believe that the acrid property of the urine resulting from lithiasis, the origin, alkaline saline cathartics, potassium iodide and carbonate with buchu and belladonna, would be the best agents at our command to combat the difficulty.

Local applications are very seldom necessary, and when they are used, nitrate of silver or carbolate of iodine are about as efficient as anything that can be applied.

There is nothing better, in my opinion, than a preparation of belladonna and buchu, in counteracting the irritability always existing in connection with enlarged prostate. By effecting this end we, in many forms of the disease, limit its progress, and quell many of the troubles incident thereto.

ACTION OF REMEDIES.

INAUGURAL THESIS FOR GRADUATION IN ATLANTA MEDICAL
COLLEGE, MARCH 1, 1878.

By S. W. JOHNSON, CUMMING, GA.

Within the range of the professional pursuits of medical men there is no subject more interesting or more worthy of investigation than that selected for this essay.

For the proper and successful treatment of disease it is absolutely necessary that we have a right understanding, not only of the cause and nature of the pathological conditions to which our remedies are directed, but a correct knowledge of the physiological action of those remedies.

When our acquaintance with these two subjects is complete, we shall be able to do all that man can by any possibility do in allaying human suffering. Without such knowledge of the natural action of remedies, we are unable to combat successfully against our common enemy—disease.

The tempting tendency to study remedies according to the diseases in which they are used, or their therapeutic result—coupling certain remedies with certain diseases—to the exclusion of their physiological action, is quite a difficulty in the progress of rational medicine, and leads to the empirical idea of specifics for the cure of disease.

This system requires for its elaboration a comparatively small degree of knowledge or investigation, hence the exceedingly great number of its votaries.

There is a wide difference between the physiological action of a remedy and the therapeutic result of that action. They are in relation to each other as *cause* and *effect*.

The physiological action, the only true action of a remedy, is that which is exerted upon an organ or tissue, both in a diseased and in a healthy state, and must be understood in order to the rational treatment of disease.

The following instance will serve to illustrate the routine manner in which remedies are often employed: A physician of this city came to the office of my preceptor last summer, to consult him in regard to a case which he said had annoyed him no little. He remarked that it was a case of acute inflammation of the kidneys, bladder, and peri-uterine structure, with consequent painful micturition and scanty, high colored urine. He was asked what course of treatment he had adopted: "I have," said he, "used the oil of turpentine in connection with other diuretics, and my patient, instead of improving, is growing rapidly worse."

The friend whom he was consulting then remarked that he did not wonder the result of such a course of treatment. "The remedies you are using," said he, "will but aggravate and increase the morbid condition which you are attempting to relieve. You do not wish," said he, "to use a stimulant to the already excited and inflamed kidneys, but on the contrary you want a renal sedative; for while oleum terebinthinæ will, under certain conditions, produce diuresis, there are other conditions in which it is not a diuretic 'so-called.'"

The *modus operandi* of remedies can be accounted for in three different ways, viz: 1. On mechanical principles; 2. On chemical principles; 3. On vital principles.

In the human mind there is a tendency to explain everything; and it was but natural in former times, when men knew little of chemistry and physiology, to attempt to account for the action of all remedies, both local and elective, through mechanical process. They claimed that the shapes of the minute particles of remedies are sufficient to account for the several actions.

Locke, in his *Essay on the Human Understanding*, published in 1689, said: "Did we know the mechanical affections of the particles of rhubarb, hemlock, opium, and a man, as a watch-maker does those of a watch, whereby it performs its operations, and of a file, which, by rubbing on them, will alter the figure of any of the wheels, we should be able to tell beforehand that rhubarb will purge, hemlock kill, and opium make a man sleep."

We know that many local remedies act through this process, by protecting denuded and irritable surfaces from the atmosphere and other irritating and foreign substances, or by the unevenness and roughness of its surface tending to irritate the part.

It does not seem to be altogether impossible that the action of some at least of the elective remedies, particularly of those acting upon the nervous system, should depend upon the peculiar mechanical arrangement of the molecules of these substances, as related to those of the tissues which they influence.

We know the nerves are particularly susceptible to mechanical impressions, upon which depend the phenomena of two at least of the five senses—those of hearing and touch. There is no more plausible explanation of this action, and if we accept the atomic theory, by which many chemical phenomena are cleared up and explained, we must admit that the ultimate atoms of all compound bodies, whether fluid or solid, have a peculiar arrangement and shape.

While it is necessary that a remedy which affects the nervous system be absorbed and taken into the circulation in order to make its impress upon the brain and spinal cord, it is admitted that it can impress the nerves themselves, changing or modifying their function without first

being taken into the circulation. Can this action be accounted for in any other way than by mechanical principles?

While this is conjecture, to a great extent, it explains many of the phenomena which are otherwise inexplicable.

Like the older, some even of the modern writers have attempted to account for the action of remedies in general through chemical process. Muller thinks that the agency of many remedies may be explained by their chemical affinities. He supposes that they may effect a change in the nutritive fluids, or that they may so disturb the state of combination in which the elements of an organ be, that it becomes insensible to the action of morbid stimuli. Some have tried in this way to explain the action of alcohol by its chemical affinity for the brain.

While some remedies act through chemical process, there are many the action of which cannot be explained in this way. We know that the action of most nerve-medicines, and of gland-medicines cannot be reasonably explained on any such hypothesis.

Chemico-vital force is quite different from chemical force. It must not be imagined that chemical solutions, decomposition, and reactions of every kind are allowed to take effect in the human system as in the laboratory of the chemist; for in the former there are many disturbing and controlling causes which suffice to hold them in check. Yet there are many remedies the action of which cannot be accounted for in any other manner than through chemical process.

Of local remedies acting through this process, we have those affecting adventitious substances and structures, such as anthelmintics, escharotics and antiseptics. Of elective remedies, we have those affecting the blood, such as hæm-
atins, spanæmics, diluents, hæmostatics and catalytics.

The reaction produced in the blood and in the fluids of the tissues by these remedies is sufficient to account for their action.

Many of the local remedies and most of the elective remedies affecting solid structures act through vital pro-

cess. By vital process is meant those changes which are produced in capillary circulation or vitality of the part which are neither mechanical nor chemical, and which can take place only in the living body. As we have said, the most plausible explanation of the action of most remedies is upon this hypothesis. The exact nature or manner of this action, however, seems to us to be but little understood.

There are many theories extant as to the action of these vital or general remedies upon disease. The rule of the disciples of Hahnemann (the homœopathists) is *similia similibus curantur*. Upon this idea, I suppose, they would administer strychnia in tetanus, and opium in congestion of the brain; and perhaps they would decline to treat small-pox or syphilis, because they can find no medicine to produce these affections.

The maxim of Hypocrates was, *Contraria contrariis curantur*. Upon this idea, I suppose purgatives alone would be given in constipation, no matter upon what the affection might depend.

Many other theories have been advanced as to the curative effect of remedies, but between these extremes there is a "happy medium," and we know now that there are various ways in which remedies act in the cure of disease.

To sum up the matter, we may say there is but one natural specific action of a remedy, and that is physiological, and that this action may be had through mechanical, chemical or vital process.

Many remedies have two actions, primary and secondary. Primary is the first impression that is made by a remedy upon an organ or tissue. This first impression is often quite transient, giving place to the secondary and usually more important action of the remedy.

The first action produced by opium is stimulation, which lasts but for a short time; this is soon followed by the secondary, which is sedative, and the most permanent action.

Local as well as elective remedies have these two actions. We see this exemplified in the action of the cauterant, the first being stimulant, the second quite the oppo-

site. It is a doubtful question in our mind whether there can be too distinct actions exerted upon the same organ or tissue by the same dose of one remedy. We are of the opinion that what is called the secondary action is but the result of the first or primary action of the remedy. The therapeutic result of these actions may be direct or indirect—direct if the curative change is produced in the part upon which the action of the remedy is exerted; indirect if the change is brought about in an organ not acted on by the remedy.

Elective remedies must enter the circulation or other of the internal fluids, in order that their action may be manifested. It is not necessary for certain remedies to enter the blood directly to produce their action upon certain parts, but may enter the chyle or intestinal fluids, and in this latter way the most speedy effect is produced upon certain parts. For instance, when chloroform or a preparation of aconite or opium is rubbed on the skin at any part, as soon as it has had time to permeate the cuticle, it paralyzes the sentient nerves. These are bathed in the intestinal fluids of the part.

Thus we see that it is not necessary for them to enter the circulation at all to produce their effect upon these nerves, though when applied in large amounts it enters the circulation and produces its effects upon distant parts. Thus belladonna or atropine, which, when applied to the surface of the eye or neighborhood of the orbit, influences the nerves of the pupil in such a manner as to cause the latter to dilate, or the principle of calabar bean, which causes it to contract, must in all probability find a more direct road to these nerves than that which is offered by the vascular system.

Dr. W. F. Westmoreland, from experiments made upon chickens and other fowls by the bite of rattlesnakes, seems to think that the poison may be transmitted to the nerve centers by means of the nerves themselves. In the experiments made by him, there was no perceptible time elapsed between the blow of the serpent and the death of the animal. Death was instantaneous with the blow or bite.

There are, however, four substantial reasons for believ-

ing that it is necessary for the manifestation of the action of an elective remedy that it shall enter the blood or other of the internal fluids of the body.

1. When introduced into the circulation at any other point, they act in the same way as when taken into the stomach.

2. The continuity of a nerve is not necessary for them to exert their action, but the vascular connection is necessary.

3. The circulation of the blood is sufficiently quick to account for the effect of those poisons which act most rapidly by influencing the nerve centres.

4. The great majority of elective remedies have been found in the blood and the secretions formed out of it.

While, perhaps, no one of the above propositions is positive proof of our position, yet, taken altogether, it seems to establish, beyond a doubt, the truthfulness of our statement: that while some of the neurotics may act through chemical process, it is absolutely necessary that elective remedies enter either the circulation or other internal fluids of the body, in order that their physiological action may be had. But we repeat, that it is not necessary for all neurotics to enter the blood and be conveyed to the nervous centres before their physiological action, or at least the effect of their action, can be exerted. If this were absolutely necessary, why does not a solution of the sulphate of atropia, when dropped upon the ball of one eye, cause the pupil of the opposite eye to become dilated as quickly and completely as that of the eye in which it was placed?

Some elective remedies do, however, exert a slight action upon the membrane through which it is absorbed, as a mucous membrane, and it may also act upon certain glands as it makes its exit from the circulation. Yet, the prime action—that to which most importance should be attached—is had by these elective or constitutional remedies while in the blood or in the tissues upon which their physiological action is exerted.

There are many circumstances which modify the action of remedies, some to a greater, some to a less extent.

It is highly important for the medical practitioner to understand these conditions or circumstances; for serious results have come of the administration of a single dose of medicine to a patient in whom there was a peculiar susceptibility to the action of the remedy, when in the great majority of cases no such bad results would have followed.

It is not necessary for us to enumerate all these circumstances, but will be content to mention a few of the most important.

1. Climate modifies, to a certain extent, the physiological action of remedies. Mercurials given for the purpose of exciting the liver, are required in larger quantity in the South than in the North. Again, persons reared in a Southern climate are said to be more susceptible to the action of opiates, than those residing in a Northern climate. This is also true of calorifics—heat producing agents—requiring a much smaller quantity to keep up the required temperature of the body in the South than in the North.

2. Sex. While in the majority of instances but little or no difference in the dose administered to the male and female is to be observed, yet the greater susceptibility of the female to mental influences and nervous impressions, should cause us to be more guarded in the use of neurotic medicines than in the stronger sex. The changes produced in the system by the functions of the uterus, modify the action of remedies, and, not unfrequently, cause us to adopt a mode of treatment altogether different from that which we would adopt if such physiological conditions did not exist. No one would think of administering ergot or drastic cathartics to a pregnant female in the treatment of diseases, which, under other circumstances, would indicate the use of such remedies.

3. Habit. This should not be lost sight of in the administration of remedies; for it often modifies the action of remedies. In the majority of cases, it renders the system less susceptible to the impression of certain remedies, requiring for their ordinary or natural action a larger amount than the usual quantity administered to produce the desired result. The "opium eater" and the "whisky

drinker" would be but slightly effected, if at all, by the usual dose or quantity of these stimulants. Not only does habit in this respect modify the action of remedies, but it is true of all his habits, the manner of living, the character of exercise, etc. The adage that "habit is second nature," is as true in a medical point of view as in any other respect.

4. *Idiosyncrasy.* This is a constitutional confirmation, which prevents the remedy from exerting its physiological action upon the system. It is generally an easy matter to acquaint oneself with the idiosyncrasy (if it exists) of each patient, and at no time should the importance of the truth that this peculiarity in the constitution modifies materially the action of remedies, be overlooked. It not unfrequently occurs that remedies administered to patients possessing this peculiar confirmation, produce a result just opposite to that which is known to be its usual effect.

5. *Incompatibility of remedies.* This often interferes with their physiological action. It is known that certain remedies, perfectly innocent within themselves, when combined become virulent poisons; while the potency of some of our most active remedies, by combination with other remedies, is destroyed—becoming perfectly inert and worthless in the treatment of disease. There are, as stated elsewhere, however, chemical, not physiological incompatibles. In the living body there are many conditions which interfere with the changes which would take place in the laboratory of the chemist.

6. *Temperament.* There are four temperaments—the lymphatic, nervous, sanguine and bilious, each of which should be definitely taken into consideration in order to calculate with certainty the degree of physiological action to be effected by certain remedies and the therapeutic changes produced by such action. In the sanguine temperament, depletion and antiphlogistic treatment can be carried to almost any extent desired; while such a course with the lymphatic, if persisted in, would soon carry the patient to his grave. Where the nervous influences predominate, exciting neurotics should be administered with caution.

7. Age. This possesses a greater modifying influence over the action of remedies than any other circumstance. It is not sufficient, in many instances, to administer a quantity proportionate to the age compared with that for an adult, for this modifying influence exists independently of the difference of age. We know that a dose of opium, proportionate to the dose for an adult, if administered to a child, will produce even alarming effects. It is known, also, that children are much less subject to the action of mercurials, in proportion to their age, than adults. A quantity which would perhaps be sufficient to produce ptyalism in the adult, will produce no such results upon the child. Why this difference should exist, or upon what peculiarity it depends, is but little understood. Dr. J. G. Westmoreland, in his "Acology and Therapeutics," says upon this point: "Whether this depends upon a want of susceptibility in the parts to be acted on, a deficiency of solvent material in the stomach, or a want of activity in the absorbents, is not very clearly understood."

This difference in the action of remedies is not confined to childhood. Remedies which, in youth and prime of life would produce but slight impressions upon the system, would often produce alarming effects upon the aged. This susceptibility to the action of remedies in old age should be known, and great caution exercised in the administration of remedies to this class of patients.

To Dr. J. G. Westmoreland the medical profession and the public in general are indebted for instituting a rational and scientific system for the correct studying of the physiological action of remedies. He stated to the present medical class that he was proud to say that most new works on this subject are adopting a classification founded upon this action.

CLINICAL LECTURE IN ATLANTA MEDICAL COLLEGE—SERVICE OF DR. J. G. WESTMORELAND.

REPORTED BY S. W. JOHNSON, M.D.

J. M., (white) æt. 33 years, and farmer by occupation.

Gentlemen—This man is a fair representative of a va-

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riety of indigestion not very frequently met with, but exceedingly difficult to manage successfully. You have witnessed the critical examination to which he has just been subjected, and have probably come already to some conclusions for yourselves.

The sense of weight and fullness in the stomach, red tongue, etc., indicate an irritable condition of the gastric mucous membrane. The increase of pain and sense of heat after taking food confirms the opinion, and leads to the impression that all his trouble is the result of chronic inflammation in the stomach, extending, perhaps to tissues beneath the mucous coat. The uneasiness and fullness exhibited in the right hypochondrium do not tend to change my opinion in this particular, but rather to confirm it. It is a fact constantly verified by experience that organic lesion of the stomach almost invariably leads to hepatic disturbance, and often of such character as to leave doubt as to the organ primarily affected. The same sympathetic impression is made upon the stomach by organic disease of the liver, so that the student of pathology finds great difficulty sometimes in determining the origin of trouble existing in the digestive apparatus. Not only so, but when the location is ascertained, much difficulty is sometimes experienced in arriving at correct conclusions as to the nature of the lesion.

Evidences of a want of proper preparation of food are found in various pathological states of the stomach, and as the result of nervous, hepatic and pancreatic lesions, either organic or functional, as well as primary disease of the stomach itself. Distressing indigestion sometimes exists as the result of enervation of the stomach on account of reflex influence from urinary and uterine disease, transmitted to that portion of the spinal cord supplying the digestive organs.

Sedentary habits also lead to an inactive condition of the muscular and follicular structure of the whole alimentary canal, upon which a form of indigestion with constipation depends. While we have no well established opinion of the use of bile in the process of digestion, certain it is that this fluid is absolutely necessary to the

preparation of the food for assimilation, and that inactivity of the liver produces indigestion independently of sympathy existing between the liver and the stomach, before alluded to.

The case before us to-day, gentlemen, is evidently one of organic lesion, as before stated. The deep-red color of the tongue, and the sense of heat and pain after taking food, make this different from the other forms of indigestion, just mentioned, and control me in the opinion I entertain of its inflammatory character. The pathological state in this case is exactly opposite of that caused by sedentary habits, and yet failure of digestion is the result of both. Instead of a want of proper kneading, the food is forced through the pylorus unchimed in the case before us. The inflammation affecting also the glandular bodies which secrete gastric fluid, lessens or vitiates this important solvent of the food, so that the preparation is imperfect on this account.

I desire to direct your attention to the mental disturbance in this case. It is not only an attendant of organic disease of the stomach, but of the liver also, and even in those cases of functional derangement from sedentary habits or nervous origin. This man has forebodings of evil to come upon him, loss of memory, and various forms of imaginary distress. It is called melancholia, or hypochondria. The ancients thought the former an appropriate name, on account of the constancy of dark discharges from the bowels in such cases, which they supposed depended on *melas chole*, black bile. Hence the name, melancholia, or melancholy, indicating a state of mental depression, often attendant upon hepatic and gastric disturbance.

This patient being of sanguine temperament, his florid complexion and general healthy appearance would very likely give the impression that his trouble is, for the most part, imaginary, and that the organ of the mind is the seat of primary disturbance. The mental aberration differs, however, very materially from mania. There is in his case no settled delusion upon which he acts constantly. His dread of evil, though uncontrollable, he knows is imaginary, and in this it differs from insanity.

The treatment of indigestion is as varied, and more so, than the causes which produce it. Cases apparently identical are not always subject to the same course of management. A leading feature in the treatment of all cases, is dieting, and as in this, rare beefsteak is readily digested by some subjects, while others cannot tolerate meats of any kind. Notwithstanding, then, the importance of dieting, there is scarcely a rule on the subject without exceptions. Experience with the particular patient is the only safe criterion. It may be set down as a general rule, that bland, unirritating, nourishing articles of food are more appropriate in cases like this, with tender and irritable gastric surface. Liquids containing the necessary ingredients would seem to be especially appropriate, as they give less mechanical irritation, and require less effort of the stomach for their preparation than solids. Sweet milk being of this kind, would seem to be a suitable article for such cases. Most patients entertain the erroneous idea that perfect nourishment cannot be furnished without solid food, while it is true that very little is afforded by many solid articles, particularly when, from their nature and the condition of the stomach, they are not digested. In fact, under such circumstances, they prove a source of embarrassment, and the patient had better take no food at all for a time.

Relief from the distressing symptoms in this case can be afforded in a few weeks by proper dieting and counter-irritation over the epigastrium. It must be remembered, however, that, like chronic inflammation in other parts, there will be constant tendency to its return after having entirely subsided. Care in guarding against irritating causes and watchfulness in order to detect and arrest the return of inflammation, which is certain to occur, though it has existed only for a few months, are highly necessary. I shall prescribe, for the present, oat-meal mush and sweet milk, as regular diet, and pustulation over the epigastrium with croton oil. The oil may be rubbed on the skin once or twice a day till the eruption appears sufficiently, and renewed as the pustules disappear. A pint of milk with suitable amount of mush, to be taken three times a day until his return a week hence, will be sufficient.

Although the biliary secretion is probably deficient, mercurial preparations could not prove beneficial, as the liver is already probably irritable and excited, and would not secrete more freely under the additional stimulus of mercury.

Pancreatic and gastric fluids are probably deficient with him, and will be considered at his next visit. They may be artificially afforded in the form of pepsine and pancreatine, and by their regular administration at each meal, relief may be more certainly secured.

Reports of Societies.

ATLANTA ACADEMY OF MEDICINE.

J. G. WESTMORELAND, M.D., REPORTER.

ATLANTA, GA., March 4, 1878.

Dr. J. F. Alexander, President, in the chair.

Dr. H. L. Wilson reported a case of sudden death under the following circumstances: A lady 52 years old was well at supper, and, as was her custom, reclined upon her bed after tea. Suddenly she exhibited strange appearance in the eyes, and was found to be unconscious, pulseless, and died at once. He thought embolism of the brain a probable cause, and desired the opinion of members on the subject.

Dr. Baird thought the symptoms were those most likely to result from rupture of a blood vessel in the brain, probably in the neighborhood of the medulla oblongata.

Dr. L. G. Alexander differed from those preceding him as to the cause of death in the case reported. From his discoveries by several autopsies in cases of death with similar symptoms, he was decidedly of the opinion that the cause existed in rupture of the heart from fatty degeneration.

Dr. H. L. Wilson reported also a case of stricture of the urethra and of the meatus urinarius, in which relief was

afforded at once by enlarging the canal with ceviales urethrotome and the meatus by the meatretome. The permanent stricture requiring the cutting instrument was situated about two inches from the meatus, and at the bulb of the urethra spasmodic constriction existed, requiring dilation by the bougie only. He is of opinion both the spasmodic and permanent stricture are the result of contracted meatus.

Dr. W. F. Westmoreland presented a specimen of congenital deformity of the middle and index fingers, requiring amputation of the former at the metacarpal articulation with a portion of the metacarpal bone and two falanges of the index finger. The portion amputated of the middle finger measures about two inches in diameter and nine inches long. The patient from which the specimens were obtained was a man about thirty years old, and in other respects perfect. These fingers were proportionately large at birth.

ATLANTA, GA., March 11, 1878.

Dr. J. F. Alexander, President, in the chair.

Dr. King reported a case of a female 28 years old with enlargement of the abdomen, for five months commencing—as reported—by a small tumor, in left illiac fossa. He was called December 5, 1877, and found her suffering with pain similar to the throes of labor. The patient was feeble and gave evidences of speedy dissolution. Opiates were given to allay pain and give rest. The diagnosis formed at the time was that an enlargement existed in the ovary, or tumor in the broad ligament. Consultation was had, and the tumor pierced with an aspirator, through the left lateral wall of the vagina, and about a pint of thick straw-colored fluid escaped. The patient was then directed to take regularly a saturated solution of chlorate of potassium, with iron and bitter tonics, more with the view of affording a placebo than of effecting a cure of the case. Strange to say, however, improvement commenced and steadily progressed. Instead of increase of the enlargement, she gradually became smaller as her general health improved, until reduced to the normal size. Menstruation occurred

two weeks since, for the first time since commencement of the enlargement, four or five months since. Dr. K. is unable to determine whether to the chlorate or the tapping was due the cure, which is certainly remarkable, under all the circumstances of the case.

Dr. W. F. Westmoreland presented a specimen of malformation of the thumb in a girl eight years old. The case exhibited a double thumb, the bifercation occurring at the articulation of the first phalanx with the metacarpal bone. The two were of about equal size, and in this particular differed from all the cases of this kind of deformity he had before seen. The operation consisted of amputating the bone, with the soft parts, of the external thumb.

He also asked of members whether they had seen any influence in the way of relief from whooping cough follow vaccination, or used it as a prophylactic.

Dr. J. F. Alexander, the President, stated that at one time during the prevalence of whooping cough vaccination had in families where the disease existed was found to moderate the symptoms, and his attention being called to the fact thus accidentally discovered, he has advised and practiced vaccination, with the view of lessening the violence of the cough.

Adjourned.

ATLANTA MEDICO-CHIRURGICAL ASSOCIATION.

FRIDAY EVENING, March 1.

President G. G. Crawford in the chair.

Dr. E. J. Roach reported two cases of diphtheria in infants—twins—both affected with the characteristic symptoms of diphtheria, and one of them had symptoms of pneumonia in left lung. Both recovered under the chlorine mixture. This mixture is prepared as follows:

R.—Potassæ chloratis, 3i.
 Acidi muriatis,
 Aquæ, aa ʒi.

M.

From two to eight drops of this to a tablespoonful of water may be given every two hours. For children, proportionately weaker and smaller doses should be used, and may be sweetened with syrup.

Dr. J. J. Knott said that, in 1865, he had published an article on diphtheria relative to the efficiency of creasote as a remedy locally applied. He had used a solution of one drachm of creasote to one ounce of mucilage. Often, one single application to the inflamed parts will suffice to effect a cure. He had seen violent cases recover in forty-eight hours. If there are complications, they must, of course, be met by appropriate agents. But, so far as his observation had gone, he was led to regard diphtheria a local affection merely, confined to the throat and developed by atmospheric influences. If fever and constitutional symptoms existed in some cases, they were the result of the local irritation.

Dr. R. H. Lee said he could not accord with the views of Dr. Knott. Diphtheria was a disease exceedingly fatal, especially in its epidemic form. Trousseau proves it to be contagious. Its constitutional character was manifested by the malaise and other constitutional symptoms preceding, in some instances, the local affection. Death may result from the blood poison in diphtheria, while in membranous croup, which is local, we have death from asphyxia. Tracheotomy may be more successful in croup than in diphtheria.

Dr. A. R. Alley said: Diphtheria is one of the oldest epidemic diseases of the human race. Even Homer and Hippocrates advanced views, which Bretennau first sought to prove, that the disease was known even in those times as a disease greatly to be feared. Such was the disease which the ancients were acquainted with, and I differ with Dr. Knott as to diphtheria being a local disease. From my experience with this fearful malady, and from what I have seen of it in its epidemic form, it is a blood disease, highly contagious and capable of being transmitted from person to person, and the contagion of this disease might be carried through the air, thereby producing a toxical condition which we denominate infection; or it

may even be communicated by solid materials, such as furniture of the sick room, utensils, clothing or bed-linen. Children or susceptible persons coming in contact with or using these materials will certainly be affected. Its pathology was considered to be fibrinous exudation, but it may be clearly set forth that it is albuminoid exudation. As to treatment, I have used and seen used nearly all the best known remedies to relieve the throat symptoms, but they have proved insufficient to arrest the fearful ravages of this malignant disease. I have seen used, with good effect, in a few well-marked sporadic cases, the following:

R.—Chromic acid, 4 to 10 grains to 1 ounce of water.

Apply three or four times a day to the throat.

In a majority of cases, I have seen very little benefit resulting from topical application to the throat, unless associated with constitutional remedies, such as iron, quinine, chlorate potassium and stimulants. Its prognosis must be regarded as very unfavorable, as the mortality is fearfully great.

Dr. Pinson remarked that he had seen but little of the disease, but had experienced it in his own person when a child. It developed suddenly after exposure, the throat symptoms being severe and well marked. He inclined to the local theory of the disease.

Dr. R. C. Word being called upon for his views, remarked that during the greater part of his professional life he had regarded the throat affection in diphtheria as but the local manifestation of a constitutional disease. And until the last few years a majority of the profession seemed to hold this view.

The bacterian theory, a short while ago, had many advocates, it being very plausibly urged that these vegetable parasites, by their local irritation, produced the inflammation and all the throat symptoms, and that by their absorption and entrance into the blood, or the absorption of some poison or septic matter occasioned by them, the constitutional symptoms were produced.

The success which has been attributed to carbolic acid, chlorate of potash and similar agents, known to be anti-parasitic, seemed to strengthen and sustain this view of

the subject. But when certain investigators announced that these fungi had been found in localities where the disease had not occurred, and had even been seen upon the gums of healthy persons, this bacterian theory lost ground, and the controversy as to the local or constitutional character of the disease is reopened.

A strong point in favor of its being primarily a constitutional disease, is the not unfrequent malaise, nausea, rigors, headache, and other constitutional symptoms that are felt before the appearance of the local anginose symptoms. And it is also asserted that in exceptional instances in this affliction, as with scarlet fever, when an epidemic is prevailing, cases occur having the characteristic fever, sequellæ, etc., and yet without the throat affection; and it is true of scarlet fever, at least, that during its prevalence exceptionable cases occur in which the throat symptoms and the eruption are exceedingly light or entirely absent, thus showing the constitutional character of a disease, which, but for these exceptions, might very reasonably be regarded as a local affection merely.

Again, observations upon the pathology of septicæmia indicate most decidedly that septic inoculation is not successful upon healthy tissue, and that septic bacteria, and septic organisms generally, flourish only upon unhealthy or decaying tissues, thus showing that bacteria may be the result rather than the cause of the ulcerated and offensive condition of the throat in diphtheritic patients.

Dr. Word stated that in the treatment of diphtheria he had had very fair success with the saturated solution of the chlorate of potash frequently administered and used also as a gargle. He also gave quinine, and believed that these remedies were useful both as topical and constitutional agents.

Dr. Olmsted: I cannot accept the conclusions of Dr. Knott concerning the pathology of diphtheria, as they seem to be at variance with the facts revealed by clinical experience.

If diphtheria be a local and not a constitutional disease, and if, as Dr. Knott claims, the formation of the peculiar diphtheritic membrane is the first step in the mor-

bid process, and the cause of the development of the morbid constitutional symptoms always observed, how is it that we have such profound constitutional disturbance, the chill, the fever (and often great prostration of the vital powers), which usually usher in and precede the manifestation of the characteristic throat lesion? Which in fact, during the prevalence of epidemic diphtheria, are present in some well-marked cases, without the usual throat lesion being observed? The Doctor's assumption that these prodromic symptoms, which appear before the formation of the false membranes (so essential to his theory) are due to some irritation of the throat, caused, perhaps, by the initial process in the formation of the membrane, is a theoretical conception, which has little to support it, either from our clinical observations, or any facts which the closest observers of the anatomical appearances of the throat have been able to discover. Moreover, if, as Dr. Knott claims, the constitutional symptoms are produced by the passage of the air over the diseased membranes, conveying the morbid material to the lungs, from which it is absorbed into the circulation, we might reasonably expect to find always, or at least usually, anatomical appearances in the lungs, characteristics of diphtheria, and the presence of false membranes throughout the bronchial tract. Such is not the case, for while occasionally the false membranes may extend into the small bronchial tubes, as a rule they do not extend beyond the trachea. In conclusion, Dr. Olmsted believes that diphtheria is a constitutional disease, dependent upon the production of its peculiar, specific poison (the nature of which remains to be discovered) into the blood; that the chill, fever, etc., etc., indicate such infection, and the characteristic membranes which appear in the throat, or in other parts of the body, are simply the local expressions of a constitutional disease, and not a "cause." He also thinks that the decomposition, and other chemical changes, which take place in this membrane, may add a new source of constitutional infection, just as the absorption of any other septic material may do, but this is only a secondary effect.

Dr. T. S. Powell: I doubt that the cases reported by Dr.

Roach were genuine diphtheria. The cause which developed the pneumonic symptoms mentioned in the one case might have produced the apparent diphtheritic affection in both. He was, however, not prepared to say much experimentally in regard to diphtheria, having had the good fortune in a long practice to see and treat but few cases of this fearful disease. He believed it to be very imperfectly understood by the profession generally; medical men differ greatly in their opinions as to the cause, pathology and treatment of this affection. He admitted that Dr. Knott's opinion, as to its local character, was plausible and was vindicated by a respectable and enlightened portion of the profession. But he had always entertained the view that genuine diphtheria was constitutional, the local manifestations in the throat being positive evidences of disease in the blood. He had noticed that scrofulous and tuberculous constitutions were peculiarly liable to this disease, especially in miasmatic localities. In certain of its features and perhaps its nature it was not unlike erysipelas, and should be treated upon the same principle. A definite plan of treatment could not be given for every case. Individual peculiarities must be met by appropriate remedies, but constitutional treatment looking to the elimination of the materies morbi, he thought important, and in many cases indispensable. He had found quinine, iron, and chlorate of potash the most successful agents to meet these indications.—*Southern Medical Record.*

NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, February 18, 1878.

Salvatore Caro, M.D., Chairman, read a brief paper upon vicarious menstruation, and gave the history of a case in which the hemorrhage occurred from the gums. The patient was 23 years of age; began to menstruate at the age of 16; had an attack of intermittent fever in September; menses disappeared, but did not return when the malarial fever was arrested. She soon began to suffer from toothache, which was accompanied by some hemorrhage

from the gums. Relief not being obtained, in July following she had the tooth extracted at the time it was giving her great discomfort; blood came freely from the cavity, and the bleeding resisted all means, such as plugging, etc., for its arrest, but finally ceased. In August bleeding from the gum returned; application was made to a dentist for relief; none was obtained, but the bleeding again ceased at the end of four days. In September the bleeding from the gum returned; she applied to a physician; no special relief was obtained, but hemorrhage again ceased at the expiration of four days. In October the patient came under Dr. Caro's care. It was regarded as a case of vicarious menstruation, and the patient was placed under the following plan of treatment:

She belonged to a religious order that imposed protracted and severe religious duties; it was advised to abstain from all these; to take plenty of good food; to wash the mouth daily, for about ten days prior to the time for the occurrence of the hemorrhage from the gum, with tincture of myrrh and water; to take thirty drops of the fluid extract of ergot every four hours; and to apply mustard drafts to the popliteal region.

In October she bled a little from the gum and soiled one napkin. The treatment was repeated in November, but not with as favorable results, for no blood was discharged from the uterus, and the bleeding from the gum was more profuse than formerly.

In December the mouth-wash and mustard revulsives were repeated, and ten-drop doses of the tincture of iodine given in Spanish saffron tea; menstruation returned, without hemorrhage from the mouth, and lasted five days. In January the patient menstruated normally; duration, four days. In February the menstrual function was performed in a normal manner; her health seemed perfect; duration of discharge four days.

Dr. Isaac E. Taylor remarked that Dr. Caro's case was important as illustrating the effect produced in the female economy by malaria. Malaria exerted a powerful influence not only with regard to amenorrhœa, but also with regard to metrorrhagia, affections of the kidneys, stomach,

intestines, etc., etc. Hence, the disturbances of the nervous system and the development of neuralgia, toothache, gastralgia, etc. The effect produced upon the system by malaria during pregnancy was much more marked than under other circumstances. Within the past year he had seen six cases of gastralgia dependent upon malaria, and all occurred in pregnant women. Now, when menstruation ceased because of the action of malaria in the system, as it seemed to in the case reported by Dr. Caro, hemorrhage might occur at any point where the blood-vessels were in a weakened condition, whether it was in the mouth, upon the arm, or upon the top of the head. Dr. Taylor referred to one case in which the vicarious hemorrhage occurred from a patch upon the arm; also to another in which it occurred from a broken surface upon the top of the head. Mention was also made of a case in which hæmatemesis was substituted for menstruation. The uterus was measured and found to be $3\frac{1}{2}$ inches in depth. A sound, having a large end, was introduced a few times prior to the time for the occurrence of menstruation; the uterus was increased in size to a little over four inches, owing to the normal ductility of the organ; menstruation came on, and then the uterus was very much reduced in size; a process of involution, as it were, was accomplished. At the end of two months the menstrual flow was fully established. If that plan of treatment was adopted, the sound must be used with the greatest gentleness and care.

Dr. Hubbard referred to a case in which the patient was supposed by her physicians to have hemorrhage from the lungs, because at each menstrual period she expectorated blood. The expectoration of the sanguineous fluid lasted three or four days; she was then entirely free from it until the next menstrual period, and the phenomenon continued until near the close of her menstrual life. The woman was in very good health, and no treatment was introduced except that directed to her hysteria.

Dr. Church mentioned a case in which hemorrhage occurred monthly from the umbilicus; but the history was incomplete, from the fact that circumstances were such as to forbid complete examination. There was no menstrual

discharge per vaginam, and the Doctor was unable to say whether or not a vagina existed.

Reference was made by several members to cases in which existing discharges, such as discharge from the ears, from ulcers, etc., etc., were aggravated at the menstrual period.

Placenta Prævia without Hemorrhage.—Dr. Isaac E. Taylor related the history of a case in which the placenta presented, yet delivery was accomplished without hemorrhage and almost without pain.

The woman was æt. 25, not very robust, and at nearly full term presented an appearance as if only in the fifth or sixth month of pregnancy. The Doctor was called to decide whether or not the child was living. Neither placental murmur nor foetal heart could be heard. By external manipulation the conclusion was reached that the head of the child was in the cavity of the pelvis, thus accounting for the apparently small size of the child. The Doctor called again at about four o'clock, when, on examination, the neck of the uterus was found to be about one inch in length, and undilated; pains very slight and irregular; and the finger came in contact with a globular mass, which was quite soft as felt through the uterine wall.

At 6½ P.M. Dr. Taylor was summoned, and found the pains quite regular, the neck dilatable, so as to permit the introduction of a finger, and a very soft substance was felt; the ordinary show was absent; there was quite an abundant secretion of mucus; and he was unable to determine the nature of the soft mass.

At about 7.20 P.M., with a single expulsive effort, the placenta came down, child and all, and the labor was completed without the loss of blood. On examination the head of the child was found to be hydrocephalic; the placenta was 3½ inches in width and in a complete state of fatty degeneration.

Dr. O'Sullivan mentioned a case in which there was placenta prævia, but no hemorrhage, and when labor was completed the placenta was found to be the seat of complete fatty degeneration.

The section then adjourned to the dining-hall, where the members and guests, on invitation by the Chairman, partook of a bountiful collation.—*N. Y. Medical Record.*

Selections.

THE PATHOLOGY OF AGUE, AND THE AGENT THAT PRODUCES IT.—There is no subject, perhaps, in the long catalogue of diseases, that has attracted more attention of the medical profession than that of the pathology of what is known as miasmatic, or malarial fever. In 1695, Dr. Sancisi, a distinguished Italian physician, I believe, was the first to put forth distinct ideas and theories concerning the so-called malaria; and from that time to the present, new theories have been promulgated, soon to explode, leaving us as much in the dark as centuries ago, especially concerning the morbid agent that goes to produce the disease. Occasionally an over sanguine chemist has conceived the idea that he had discovered the peculiar poison known as miasm, and had possessed the erratic enemy in a tangible form; but he, too, has been forced to admit that the wily agent had eluded his grasp.

The profession has, for ages, with one accord, attributed all periodic fevers to the effect of miasma, a specific poison, absorbed and taken in the circulation of the blood, thereby chemically changing and contaminating it, a theory I have never been able to reconcile with the character of the disease. For the sake of convenience I shall use the terms miasma and malaria, but I believe there is another and better term for this agent, more consonant with the disease it produces, which I shall endeavor to explain as clearly as possible, and which I shall denominate the morbid electrical fluid.

In the first place, I cannot admit, and must deny, that malarial fever is a blood disease; and will submit as a fact demonstrable, that the blood is simply the vehicle which

conveys the morbid agent, and no effect is produced until the structure for which the fluid has the greatest affinity has become ready, from some predisposing cause, to receive the impression of the agent, and thus will be specifically affected; which structure is the nervous system. The advocates of the chemical hypothesis contend that the constituents of the blood become altered and contaminated by the peculiar miasm or virus, but when such blood is introduced in the circulation of a healthy individual, it gives rise to nothing like the original disease.

Why it is that certain morbid agents select particular organs and tissues to exert their actions upon, we do not know; but that such is the fact all medical observers will bear witness. Neither is it more surprising than that some of the natural fluids of the body, like the urine, bile, etc., remain with impunity in some parts of the body, while if they gain admission to other parts, as the cellular substance, or peritoneum, they occasion inflammation, sloughing and death. So far, therefore, as determining by chemical analysis, the exact constituents of the morbid agent called malaria, may be regarded a delusive hope; as Liebig, in his animal chemistry, truly observes, "with all our discoveries we shall never know what light, electricity and magnetism are, in their essence. We can ascertain, however, the laws which regulate their motion and rest, because these are manifested in phenomena."

This is equally true, when applied to malaria, as I regard it, an electrical agent, produced in certain localities, possessing certain active principles which are latent and unappreciable in the natural state, and are only called forth and developed by the influence of some other agent or process which effects a transformation, or metamorphosis of the crude material. Thus it is with heat, electricity and magnetism; each only becomes apparent when certain physical substances operate upon each other in such a manner as to disturb or derange the original state of cohesion of particles. The morbid agent called malaria is produced in certain localities, by a combination of circumstances and elements, in certain definite proportions, and has an elective affinity for the nervous system; conveyed

thence, *perhaps*, through the circulation of the blood, and if so, without impressing the great arterial system.

Any medical man who has had any experience in the treatment of ague must have been struck with the peculiar shock made upon the nervous system; an impression not unlike that of an ordinary electrical shock, only of longer duration and of milder form.

This electrical agent is not the result of decaying animal or vegetable matter, as is generally taken as a fact, but *may be*, and frequently *is*, generated in localities where there is no vegetation, either decaying or otherwise, and that are perfectly dry, and facts can be adduced to show that the decomposition of vegetable substances is only an accidental accompaniment of the miasm, and not by any means an essential condition of its evolution.

Dr. William Fergusson, an English physician of wide experience, in an interesting paper, "On the Nature and History of the Marsh Poisons," published in the Edinburgh "Philosophical Transactions," says, "In August, 1794, after a very hot and dry summer, our army in Holland encamped at Rosendaal and Oosterhout. The soil in both places was a level plain of sand, with a perfectly dry surface, where no vegetation existed or could exist, but stunted heath plants. It was universally percolated to within a few inches of the surface with water, which, so far from being putrid, was perfectly palatable. Here fevers of the intermittent and remittent types appeared among the troops in great abundance." Many instances of a similar character could be given. A striking example occurred under my own observation, a few years ago, in Baltimore city, Maryland. The northwestern part of the city is built on very high ground, and from the natural drainage is kept perfectly dry, and entirely free from either stagnant water or decomposing vegetable substances. Up to that time that part of the city was sparsely built, and owing to the healthfulness of the locality, a demand was created for residences, and the greater part of the unoccupied ground was built upon in the course of one or two years, in consequence of which a great deal of fresh earth was turned up, by excavating cellars, etc. Immediately there-

after intermittent fever set in, and prevailed for one or two seasons, scarcely a family escaping the disease; while prior to that time a case of ague was not known to originate in that locality. The latter is another convincing proof, to my mind, of the fallacy of the theory of vegetable decomposition; but there was an element arose or brought into action, from or by the upturned earth, combining with another element necessary in the premesis, or being acted upon dynamically, which produced the morbid electrical agent causing ague. This electrical agent is rapidly produced, and one or more principles may exist naturally in all conditions, and the moment in which the substance of the atoms combines with the new element necessary to the production of the morbid agent, that moment it acquires the capacity of penetrating the organism, and exciting therein its deleterious effects. This agent brought in contact with the invisible extremities of nerves, its hyper-microscopic atoms will enter the organism at the same time with their superficial electricity, and will, if the nerves be in a perfectly natural state, be thrown out of the system without impediment, even after having penetrated it every direction. But if a body is in a state of imperfect health the power of conduction proper to the nervous substance will be materially diminished, and the morbid electric current leaves the atoms at the enfeebled spots, where they exert a detrimental influence. This electrical miasm is incapable of imparting its peculiar influence, unless it is brought into contact with those tissues for which it possesses a kind of elective affinity.

I am not sure that it is necessary for the miasma to be absorbed, and pass through the arterial system, to produce its effect on the human economy, but it may operate by making its primary impression upon the sentient extremities of the nerves, impairing their integrity, and rendering them incapable of conducting the electrical stimulus to the extreme vessels, and therefore produces the shock. The extreme terminations of the nerves are so highly impressible that the very minutest quantity of a specific agent is capable of producing prompt and decided effects,

while the same agent would prove powerless if applied to the larger nerves. Thus it is that imponderable substances and mental emotions are so often the causes of disease. Sometimes a morbid agent may be powerless to exercise an influence upon any tissue, and may remain in the system an indefinite length of time without affecting it, and yet retain its activity. The reason for this may be explained thus: the tissues upon which it acts by affinity are in so perfect a state of vigor as to be able to resist the power of the noxious agent, until some cause shall enfeeble the part to be affected, and thus predispose it to receive the injurious impression.

The same explanation will justly apply to the latent principle of malaria, as often experienced by those exposed to its influence; the morbid agent remains harmless for months, when suddenly some tissue becomes enfeebled and incapable of resisting the action of the specific agent, and the disease in all its violence bursts forth. The nervous system is not unlike an electrical battery, possessing, as it, does, a peculiar imponderable, invisible principle, which may be thrown into active operation by coming in contact with another electrical element, producing good or evil effects, as to the agent employed.

The great nervous system may be properly likened unto an electrical battery; the various branches act the part of the poles for conveying the current; and when all the ramifications of the nerves are charged by this morbid electrical fluid, a physical impression is made upon the human economy, very like that of a shock received from an electrical battery.

In the effort of the noxious electrical fluid to expand itself upon the nervous system, the primary impression is that of rigor and shrinkage of parts, with contractility; the secondary impression is that of heat, caused by the rapid expansion of the parts previously acted upon, necessarily causing the evolution of heat, and what is known as the febrile stage of the disease.

As I said before, it is not necessary to have decaying animal or vegetable matter to produce this subtle agent, but it seems to require heat and moisture, and not the

earthly substance of any particular locality; for instance, a subject predisposed to ague may eat heartily of water-melons, afterward expose himself to the heat of the sun for an hour or more, and he is a fortunate individual if he escapes a chill. Such instances of the rapid production of chills are numerous, and, certainly, we cannot attribute such attacks to the malaria of a marshy district; but it is a convincing proof that this subtle agent may be generated and produced in a very short period of time, similar to that of an electrical current, and the watermelon in such cases is simply a factor, the effect which, when brought in contact with agents natural or unnatural to the human system, subjected to the heat of the sun, generates the morbid electrical fluid, which, as soon as the battery (the nerve centres) is charged sufficiently, electrifies the whole nervous system, with all the pathognomonic symptoms of regular ague.

This agent possesses certain peculiar and distinct properties which enable it to exercise an influence only on particular nerves, and will pass over, in fulfillment of this law, various intermediate nerves of more direct anatomical connections. This principle of elective affinity, being so universal, as applied to morbid, as well as remedial agents, the influence which any substance of either class exerts upon the organic elements can, with propriety, be denominated its specific effect.

Therefore, this miasmatic electrical substance possesses the property of selecting that tissue for which it has an affinity, and of expending its entire primary action upon the particular parts selected; the sympathetic modifications, the result of variable degrees of strength and purity, operate mainly as secondary phenomena. It is by virtue of this law that medical men have been enabled to classify diseases; and that medicines may be administered which operate with certainty upon particular tissues and organs. The electrical influence of miasma is not entirely a new idea, as some writers long since attributed the operation of medicines to the same influence. Bischoff says: "All bodies, by contact with each other, act as electrics, without, however, necessarily undergoing any chemical changes.

Therefore, when a medicine is applied to the organism its action is electrical." The instantaneous effect of very minute quantities of hydrocyanic acid and some of the gases most certainly bear a close resemblance to the overwhelming shock of lightning, and therefore, it must be conceded, go far to sustain this opinion.

Whether all morbid and remedial agents act dynamically or electrically, may admit of a question, but it is quite clear to my mind that miasma is an electrical agent, and its primary impression is made upon some portion of the nervous system, and that its action is electrical. An individual may have but one chill, or a few, and no more; which may be explained in this wise: the amount of morbid agent generated in the system is dependent upon circumstances, just as is the case with the preparation of an electric battery. There is more than one agent necessary to the production of this agent, and there may be a deficiency of one or both in the human battery, and consequently only one or more charges are generated, after which there can be no more until the battery is supplied with additional elements. The time required for these elements to produce the morbid agent may be variable, according to the degree and quantity, and this may explain the periodic character of the paroxysms. Many theories have been advanced by pathologists, to account for the periodic occurrence of the paroxysms at regular and stated times; but reasoning upon the theory that miasma was a poisonous chemical agent, absorbed and taken in the circulation of the blood, producing a chemical change, thereby vitiating that fluid, of course, they found themselves at sea, and just when they thought they had grasped the miasmatic problem, their attempts at explanation have been either quite hypothetical, or totally insufficient and illogical.

One writer has ascribed the intermission to a periodic development of the fermentable matter in the blood. There has been no such development in the blood shown, nor any evidence of it; and if such were the fact, that such development took place, the question would recur, why such development should occur periodically.

Another referred the periodic character to some general law of the universe, in which he conceived some vague idea of such influences as the alternation of light to darkness, the ebbing and flowing of the tides, the periodic character of the seasons, etc.; but in this there is no rational explanation at all.

Still another advocates a most singular theory upon this subject. He attributes the periodic phenomena to the alterations necessarily produced in the human economy, especially in the functions of the circulation of the blood, by changing the position from the upright to the recumbent, and vice versa, every twenty-four hours, in the waking and sleeping periods. If such a theory was correct, it would not be necessary to resort to medication, but change the order of things, and refrain from the horizontal position during sleep, for a period. There have been many other and equally illogical and irrational theories promulgated in explanation of this peculiar phenomenon, but all have failed to satisfactorily enlighten the profession.

I am clearly of the opinion that the pathological theory of the periodic phenomenon can be accounted for, logically and rationally, when we have convinced ourselves of the nature of the agent that produces it; and I have endeavored to show, what is clear to my mind, that all the symptoms and phenomena of ague are attributable to an electrical morbid agent. This agent exists as an element of its own, perhaps, and only requires the action of some other power or substance to set it in motion, the same as producing the electric battery, which, when charged by the action of acids on certain metals, gives off the subtle fluid which produces the shock. This fluid exists in certain localities and under certain conditions. As before said, when there is a surface capable of absorbing moisture, having been flooded or soaked with water, then by a high temperature becomes dry quickly. This agent is received into a portion of the greater nervous system for which it has an affinity, and when the organic battery becomes so far charged with the fluid, it is conveyed off through the ramifications of nerves to the sentient extremities, until the battery has expended the charge. If

there still remains a portion of the fluid in this organic battery, it immediately commences to increase in volume until the battery is again charged to its capacity, and again discharged, requiring greater or longer periods of time, according to the conditions of the battery, and the amount of the element in the battery.

The whole charge may be expended with one paroxysm, thus leaving the individual free from another attack until exposed to the same element that produced the original one. This organic battery may retain the fluid in a moderate degree for some considerable time, until there is some exciting cause to put it in motion and increase the charge. So subtle is this agent, that no evil effect or deleterious impression is made upon the system by its existence until the charge is sufficient to expend its force on the nervous extremities, producing thereby contraction of the tissues and the corresponding expansion, evolving heat and producing fever. As to the *methodus medendi*, I shall have but little to say, as my object has been mainly to inquire into the pathology of the disease and the morbid agent that produces it. One general principle, advocated by Paine in his "Institutes of Medicine," I shall quote as consonant with my own views as to the treatment. He says:

"All diseases consist in a modification of the vital properties, and a consequent change of function, and are therefore only a variation of the natural states; the artificial cure consists in a restoration of those properties and functions, by making upon the former certain impressions which enable them to obey their natural tendencies to a state of health.

"Remedial agents of positive virtues operate like the truly morbid, but less profoundly in their therapeutical doses, and the philosophy of their cure consists in establishing in a direct manner certain morbid alterations in the already diseased properties and actions of life, which are more conducive to the natural tendency that exists in the vital properties to return from a morbid to their natural states."

While cinchona and its salts are improperly regarded

specifics for the cure of ague, they no doubt possess in a wide degree the requisite properties for arresting the production of the morbid electrical fluid; but salicylic acid, although used by me to a limited extent, comparatively, fulfilled the ends more satisfactorily than any drug in my hands. The *modus operandi* of the cure of ague is not by the change of tissue produced by the remedy used, by being absorbed into the circulation of the blood. The remedy, to effect a cure, need not be such as will produce any change of tissue, but such as has a negative electrical character—one that will neutralize or negative the organic battery, and thus destroy the charge and prevent an accumulation of the fluid in the human battery; in short, one that has an affinity for the nervous system.

I have purposely refrained from suggesting, more than incidentally, any particular remedy or plan of treatment in this paper, but confined myself to the pathology of the disease, hoping that future research may develop into use a remedy more reliable and better suited to the malady under consideration. It occurs to me, however, that electrical or tetanic remedies are indicated, as we have abundant proof of the action of sudden and electrical impressions in arresting an attack of ague by such means as joy and fright, and more pointedly, by the subject being suddenly and unexpectedly plunged into water. I am aware that some of my suggestions savor somewhat of the Hahnemannian doctrine, but I claim that we, as a profession, are strictly eclectic, and everything in pathology, physiology and therapeutics belongs to us as such, and it is not only our privilege, but our duty, to seek that which is good and profit by it.

The views set forth in this paper are not entirely of recent origin, as my note-book shows that I promulgated similar theories as to the pathology of ague as far back as 1859, in private intercourse with medical friends, and many agreed with me as to the nervous connections.

I know that any theory promulgated that is so entirely at variance with the preconceived views of the profession will meet with criticism, perhaps severe; but if conducted with kind and generous intentions, can only result in

good; and such I heartily seek, as I hold my views subject to correction, and possibly to refutation.—*Dr. A. S. Stonebraker in Philadelphia Medical and Surgical Reporter.*

ESERINE AND PILOCARPINE IN THE TREATMENT OF EYE DISEASE.—It is now about fifteen years since the calabar bean (*Physostigma venenosum*) was introduced to the profession as an agent having the till then unattainable quality of producing, at will, contraction of the pupil. Its great value was at once recognized by ophthalmologists. But the supply of the remedy, previously unknown to commerce, was limited, and it is only recently that its alkaloids, eserine and physostigmine, have been readily obtainable for therapeutical purposes and physiological experiment.

During the past two years I have made extensive use of eserine in the treatment of corneal ulcers. The great number of cases of ulceration in strumous children and of traumatic and other ulcerations in adults presenting themselves at the ophthalmic department of the Boston City Hospital, together with those occurring in private practice, have afforded abundant opportunities for observation and comparison, and have allowed of an estimate as to the value of treatment which could not be conclusively based on merely a few cases of a disease so variable in its severity and duration.

The modern treatment of ulceration of the cornea as occurring in young children, which had to a great extent superseded the use of caustics, insufflations of calomel, and counter-irritations, has consisted largely in local applications of solutions of atropia. This has been employed to prevent the occurrence of hernia of the iris in case of corneal perforation, and was also and principally used on the theory that it acted as a sedative upon the affected part. As to this sedative influence, I have long been skeptical, and unless this can be admitted as an undoubted fact, strong objections exist to the indiscriminate use of atropia. By causing a wide expansion of the pupil, and admitting a strong glare of light to the retina, it increases the already intense photophobia, and, by thus exciting still further spasmodic contractions, it tends to keep up

the morbid processes by the friction and close pressure of the lids upon the ulcerated surface of the cornea, the very thing it is most important to avoid.

It seemed that eserine, by its strong contractile action on the pupil, limiting very much the amount of light which would reach the retina, might lessen the reflex action causing these spasmodic contractions, and thus prove of great advantage. The results of trial have fully justified my anticipations.

In strumous corneal ulceration in children, there is little chance that the iris will be involved by contiguity; therefore no objection exists to the use of eserine, so far as any fear might be entertained of closing the pupil by effused lymph, except where perforation of the cornea has occurred or is imminent. Even then, if the ulcer is at the margin of the cornea, eserine would be indicated, as it would draw the iris away from the perforation and lessen the danger of hernia iridis. If the ulceration is central, eserine may still be used as a curative means, being replaced at any moment by atropia, if desirable, in case perforation is threatened.

Children of tender age can give little direct information as to their sensations, but, judging from their actions and the repeated testimony of intelligent adults, there is no doubt that a sedative effect, often at least, follows the application of the eserine solution; the supra-orbital pain, which is sometimes one of the physiological sequelæ of its use in a healthy eye, not being felt, but on the contrary a sense of relief from the pain already present in this region.

If we put into the eye a drop of a solution of sulphate of eserine, (two grains to an ounce of water) it causes the pupil to contract strongly in about fifteen minutes, and this effect continues for some eight hours. It should be used in the morning, at which time the photophobia is greatest, so that its effect may continue during the day, and be repeated in the afternoon, if required. Its application causes little or no pain. A solution of eight or ten grains of borax to an ounce of water may also be used twice a day, or oftener, as an auxiliary, to lubricate the ulcerated surface and soothe its irritability.

In phlyctenular or herpetic eruptions of the conjunctiva or of the epithelial layer of the cornea, eserine is of service, especially when photophobia is present, and is far preferable to atropia, which, by causing intolerance of light, adds to the patient's discomfort, and which, also, by exciting spasmodic friction of the lids over the phlyctenular elevations, increases the annoying sensations of a foreign body in the eye. There is, unfortunately, a disposition of late, among general practitioners, to employ atropia as a universal remedy in eye affections, probably because so much has been said of its value in iritis.

In traumatic or gonorrhœal ulceration, in ulceration of the cornea in persons advanced in life, or following exhaustive disease, and in creeping ulcer, (*ulcus serpens*) my experience with eserine has been favorable. The circum-or supra-orbital pain, so often accompanying these ulcers, has been relieved in a marked degree as soon as the remedy had time to act, and the ulceration has assumed a healthier aspect.

I have not yet had an opportunity to employ eserine in the rare but dangerous form of ulcer accompanying some cases of herpes zoster frontalis, but the loss of accommodation and dilatation of the pupil attending this disease, would afford especial indications for its use.

In the paralysis of accommodation and mydriasis often resulting from diphtheria, and sometimes from measles or scarlatina, eserine is very effective in abbreviating the duration of the abnormal condition. In cases of paralysis of the ciliary branch of the third pair, resulting from exposure to the cold, it is similarly useful. In paralysis of this nerve from traumatic or other causes, it is sometimes curative, sometimes only palliative; but even when only the latter, its application, once every day or two, affords much relief in lessening the amount of light, or, in other cases, by reducing the size of the widely-dilated pupil, gives much satisfaction to the patient from its cosmetic effect. In the hysterical photophobia, which sometimes causes seclusion from light, even for years, eserine forms an important part of the treatment.

Having observed a lessening of previously existing

injection of the ciliary region after its application, (a fact which seems to me important), I should hope for advantage from its use in the commencement of sympathetic irritation of one eye after traumatic injury of the other; but it should be used only as a means of arresting the morbid process after proper measures have been taken for the removal of the source of sympathetic mischief. It, as well as pilocarpine, may be similarly useful in episcleritis. In an instance of extremely conical cornea, I have surprised and delighted the patient by the great improvement in vision obtained by the use of eserine.

The obvious effects of the installation of a drop of a solution of two grains of eserine sulphate in an ounce of water into a healthy eye, usually begin to manifest themselves within fifteen minutes. The pupil contracts strongly, becoming, perhaps, not more than a millimetre in diameter; there is often twitching of the lids, and sometimes supra-orbital pain, which, usually slight, may be considerable. Vision is dim, as if the sun were eclipsed. This dimness depends on the narrowness of the pupil, which admits of the passage of only a limited amount of light. There is also spasm of the accommodation, and an induced myopia, which often reaches in a few minutes a very high degree. If the latter is corrected by a concave glass of equivalent power, vision for large objects becomes nearly normal.

These symptoms are usually at their height within an hour, after which they diminish, and at the end of the second hour have in most cases disappeared, with the exception of the contraction of the pupil, which persists for perhaps eight hours or longer.

The above facts are results of my own clinical observation. In the last and the preceding number of Graefe's *Archiv fuer Ophthalmologie*, Vol. xxiii., Parts II. and III., just received, as also in Vol. xxii., No. 4, I find accounts of careful and elaborate experiments and observations made by Drs. A. Weber and Mohr, of Darmstadt, Von Reuss, of Vienna, and Professor de Laqueur, of Strasburg, regarding the action of eserine upon healthy and diseased eyes. These have great value as explaining the *modus operandi*.

of this medicament, and as affording ground for the belief that it is to prove of extended application in ocular therapeutics, and they confirm in all respects the conclusions I had arrived at.

As regards the effects of eserine upon the cornea, the researches of these gentlemen seem to prove that the activity of the circulation is increased, that the pressure within the anterior chamber is lessened, that the action of accommodation is excited, and that the radius of curvature is shortened during its use. Increased activity in the blood supply, by rendering the cornea more highly vitalized, favors the removal of effete particles and the establishment of a process of repair; the diminished pressure upon the cornea (this pressure being itself a potent cause of ulceration) tends to limit the depth of the ulcer, and lessens the danger of perforation. Dr. von Wecker, of Paris, also believes that the eserine prevents the pus from being reproduced in cases of corneal abscess, and in suppuration after cataract operation. We have thus a rational explanation of the benefit derived from the use of eserine in corneal affections.

Dr. Weber considers that the indications for the therapeutic use of extract of calabar bean and its still more efficient alkaloid may be at once deduced from a knowledge of its physiological and, as we may say, mechanical effects. Following these indications in a great number of corneal affections he gives the results, which I translate from his own words:

"Calabar has its greatest triumph and its widest application in deep corneal ulceration, and we can assert that the therapeutic value of the means usually employed, such as compressive bandages, warm fomentations, paracentesis, iridectomy, etc., is, with few exceptions, insignificant in comparison with the great efficacy of calabar.

"It appears clearly, from my experiments, that atropine, which is used so generally, and, as I may say, in such a slap-dash manner (*schablonenhaft*), in these affections, increases the infra-corneal pressure to a dangerous degree, and hastens perforation of the corneal ulcer."

Drs. Weber and Laqueur commend the use of eserine,

as also of pilocarpine, in glaucoma, not at present, at least, as a substitute for the operative treatment by iridectomy, but as auxiliary means. In their opinion these remedies may arrest the symptoms at the premonitory stage by lessening the intra-ocular tension and relieving the obstructed circulation, and may also prevent a threatened relapse, indicated by a renewal of abnormal tension, after an attack for which iridectomy had been successfully performed.

At the meeting of the Heidelberg Ophthalmologische Gesellschaft in September, 1875, Dr. von Wecker spoke of pilocarpine, the alkaloid of jaborandi, as a myotic, and at the Societe de Biologie at Paris, October, 1877, Dr. Galezowski stated that he had found the nitrate of pilocarpine, which caused no irritation when applied to the conjunctiva, equally as effective as eserine. His experience was confirmed by Dr. Galippe.

In my own experiments, made with the chlor-hydrate of pilocarpine, the results obtained have differed a little from those produced by eserine sulphate, in the facts that less conjunctival irritation, less supra-orbital pain, and less spasm of the accommodative power seemed to be induced, while the contraction of the pupil and the temporary myopia corresponded in degree with those following the use of eserine. In these respects pilocarpine offers great advantages over eserine. It is, moreover, at present less costly than eserine, and it does not, as does the latter, deliquesce on keeping.

We have, therefore, unquestionably, two myotic agents capable of rendering immense service in ocular affections, and probably of use in other diseases, especially of the nervous system.

It is needless to say that these, as all other remedies, have their limitations of usefulness; in iritis, for instance, eserine and pilocarpine would doubtless be highly injurious, as tending to congest the already distended vessels, and as favoring the formation of adhesions between the iris and the capsule of the crystalline lens.

A CASE OF ABORTION FOLLOWED BY SEPTIC INFECTION FROM RETAINED PLACENTA; ITS SUCCESSFUL TREATMENT.—

Sunday afternoon, at 3 o'clock, November 4, 1877, was called to see Mrs. W——, four months gone in pregnancy. Found her suffering with periodical pains. She stated to me that she was flowing freely. I immediately made an examination per vaginum and my finger came in contact with a partially expelled fœtus. The patient was flooding terribly, and after some difficulty I succeeded in getting hold of the fœtus and extracted it at once. I then cut the cord and practiced "Crede's method," with a view to stimulate contractions and expel the placenta, which seemed firmly adherent. After manipulating for a short time, without success, and the flooding continuing, I introduced a sponge tampon up to the os. This completely checked the hemorrhage. I then gave appropriate doses of fluid extract of ergot at stated hours during the night, and let the tampon remain until morning, hoping from the stimulating action of its presence against the os and the effect of the ergot, to find the placenta expelled entire when it was removed, but in this I was disappointed.

November 5th.—Called and found the patient complaining of abdominal pain and tenderness, with some acceleration of the pulse. These symptoms, with some others, began to make me suspect septic infection. I removed the tampon and found the hemorrhage checked and the placenta about one-third expelled from the os. Seizing it with my fingers I tried to extract it, but my efforts were of no avail, it was firmly attached.

The discharge was so very offensive, and the symptoms so strong of septic poison, that after two or three attempts in this way, and being so anxious to relieve the woman and get rid of the decomposing placenta, I introduced a Sim's speculum, and got hold of the presenting part, and with a pair of close-shutting tooth forceps—not having placental forceps at hand—succeeded in extracting about one-half of it. Her bowels having been bound up for several days, and feeling very uncomfortable, I ordered castor oil followed by opiates to relieve pain, with fomentations, and also continued the ergot.

November 6.—Called and found the patient suffering with severe pain and soreness of the bowels. Bowels had moved; had neglected to take the opium, tympanitic condition, considerable fever, pulse full and strong, anxious countenance, with very offensive discharge. Examination revealed a portion of the placenta in the os. Being unable to remove it, and the condition growing desperate, I remembered of reading of injections of hot water being an efficacious remedy in such cases, and concluded to try it. I placed an oilcloth on the bed, drew the patient to the edge, laying her on her left side with head and shoulders somewhat elevated, then injected a steady stream of water as hot as the patient could bear it against the os for several minutes. This caused contraction and the placenta was expelled. I would here state that moving the patient caused intense pain, but after using the injections for a few moments the pain ceased, and the patient expressed a degree of comfort. Ordered opiates and fomentations.

November 5th.—Found patient complaining of pain in the bowels; neglected to take the opium. General abdominal tenderness and tympanitic condition; pulse weak and quick; says she did not rest well the night before. More or less thirst, and anxious countenance. Ordered opiates and quinine, and turpentine stupes to abdomen, with vaginal injections of hot water to remove offensive discharge.

Evening.—Patient more comfortable, less soreness and tympanitis, pulse more natural. Continued vaginal injections three times a day with fomentation and opiates.

November 8th.—Patient feeling considerable better, less pain, tympanitic condition passing off, some pain and soreness on moderate pressure, less discharge, complains of breast paining her, rested well, some headache, bids fair for recovery. Continued treatment as before.

November 9th.—Patient improving, and from this time on has continued to improve and is now up and around. This shows the value of opium in the treatment of this dangerous disease, also the value of hot water injections in removing the placenta, offensive discharge, etc., thereby

removing the focus of septic infection. These remedies should never be neglected. I consider the injections just as essential to successful treatment as the opium in those cases.—*Ohio Medical Recorder.*

TREATMENT OF NEUROSAL AFFECTIONS OF THE HEART.—

Having reviewed the treatment of primary affections of the heart, and also that appropriate to the interesting class of cases denominated the neurosal affections of the heart, it is now fitting that the neurosal affections of the organ should be considered. These must be divided into several sections, each of which presents its own peculiar points of interest. It is of no slight importance in practice to discriminate betwixt organic disease and functional disturbance of the heart's action. In the one case there is a serious matter to deal with, and proper treatment may do much to prolong life, while inappropriate treatment may permit a valuable life to slip away prematurely. In the case of functional disturbance there is rather a distressing condition to be relieved, sometimes, however, so distressing as to render life a burden almost intolerable. A well-marked case of this last description will be given further on in this paper. There is usually no very great difficulty in distinguishing betwixt a purely neurosal condition and one where to considerable irritability is super-added a condition of incipient muscular failure—a combination far from uncommon. A still greater difficulty is experienced when there coexists actual organic disease and a neurosal condition as well; and it becomes no easy matter always to determine exactly the proportions of each factor in the case before one. In order to illustrate clearly what is meant I may refer to the case of a gentleman who consulted me sometime ago, and who had double aortic disease, with much enlargement of his left ventricle. Here there were the signs and symptoms of actual organic disease. But in addition to these there was a general condition of irritability amounting to decided erethism, which was largely felt in the heart, and its action was readily disturbed on the least excitement. There was no very marked neurosal diathesis; but the gentleman, who was a

teetotaler, indulged freely in tea, which no doubt aggravated his condition. In addition, however, to this he indulged freely in marital intercourse. When the question was put to him he seemed almost relieved in his mind, and readily admitted that such was the case, stating that he had himself observed how disturbing this had become.

Here was a case where actual organic disease was blended with a decided neurosal condition. In the management of such a case there were two factors to be considered, and to be carefully kept in view; there was the treatment appropriate to the aortic mischief, and the measures suitable to the neurosal condition engrafted upon it.

It is not necessary to say anything here about the first half of the treatment. It has been discussed in a previous paper; but it is desirable to consider the first half of the management of the case. In the first place, the actual disease, and, still more, the patient's knowledge of it, pre-disposed him to the consideration and observance of his own symptoms, as very naturally might be the case; so that there was a morbid mental condition in a man structurally diseased. This, of course, aggravated the neurosal symptoms, as we well know undue attention to any nervous disturbance will. Then there came the effects of undue indulgence in a certain direction. This is a very important matter in connection with affections of the heart. An increasing experience shows this very distinctly. Not only is the excitement of coition often disturbing, even to healthy persons, but the generative expenditure forms a considerable tax upon an organism no longer in perfect integrity. It is not too much to say that a great deal of functional disturbance of the heart takes its origin in marital indulgence, and in this those who have had much experience either of heart disease or affections of the nervous system will bear me out. This is not merely amongst young men, but is found along with middle age. Much of the ill-health and of the "not-feeling-well" complained of by men who lead a quiet life amidst the most favorable surroundings is due to too great indulgence of the generative instinct. Doubtless such indulgence is less

destructive in every way than promiscuous intercourse with several persons; nevertheless, it has its consequences, and they are felt very decidedly by those who labor under affections of the heart.

In another case, also, of double aortic disease, in a young man, the same disturbing effects were felt. He was engaged to be married, and consulted me as to the propriety of matrimony; a strongly negative answer was all I felt justified in giving. In many cases of functional disturbance of the heart, the *fons et origo mali* will be found to be undue indulgence in the marital rights, and that, too, in persons who would at first sight seem the least likely people to suffer from such a cause.

When the cases present themselves where, along with actual organic disease of the heart, there is superadded a neurosal condition, it becomes very necessary to distinguish each factor in the case, and to adapt the treatment accordingly.

Being clear about this blended condition, it may now be expedient to consider the purely neurosal maladies of the heart. They consist as said before, of several varieties. All, however, are characterized by the presence of certain symptoms, and the absence of others. There is not that marked effect of exertion in aggravating the symptoms which is found so largely—indeed, almost universally—in actual disease of the heart itself. There is not that clear association betwixt aggravation of the ordinary condition and times when a large and excessive quantity of excrementitious matter is present in the blood, which is found in secondary affections of the heart, and where accentuation of the aortic second sound is so marked a sign. On the other hand, there are positive symptoms, and these are of two kinds, usually seen alone, but occasionally blended. The first of these is the excited action, where the heart's impulse is strong, and the patient is conscious of the blows of the heart's apex against the thoracic walls. This constitutes what, in its more marked forms, is termed palpitation. But very commonly the excited action falls short of actual palpitation, though to palpation and to auscultation an excited action of the heart is distinct

enough. When the patient is perturbed, or general excitement is present, the action of the heart becomes violent, and seems as if about to shatter off the front of the chest altogether. Such is the state in some cases of chorea, where the blows of the heart upon the thoracic parietes are very violent. Not rarely in cases where there is much excited action of the heart there are intervals when the heart seems to have stopped altogether, a state often causing great alarm. Such a condition is most commonly seen in women of middle age, and occurs most frequently in the night. Their complaint is, "I am not so afraid when the heart is beating hard, for then I know it is going; but when that stoppage comes on, and I cannot feel my heart beating at all, then I feel as if I was going to die;" and that such alarm should be felt somewhat keenly by a rather nervous lady in the still solitariness of her bedroom during the night, is not a matter for any surprise. In these cases of excited action any exertion is apt to be followed by an attack of palpitation; and in this respect the case resembles one of primary disease of the heart, but with a little care a diagnosis may be made correctly, even when both maladies are coexistent.

The other form of disturbance of the heart's action is that of irregularity, or intermittency. Here the heart beats quietly in ordinary circumstances, and the alteration of rhythm is the chief feature. Not rarely this condition is found mixed up with the excited action just described, but more frequently it is found alone. The nervous relations of cardiac intermittency have been well described by B. W. Richardson, F. R. S., to whom belongs the chief merit of having shown that intermittency is often a neurosal affection, and entirely free from any connexion with organic disease. At the same time, however, marked intermittency is found along with grave and serious disease. In many cases a distinct intermission of a beat will occur in a pulse otherwise equal and rhythmical, and when so associated is usually of no serious prognostic omen. Cases of such functional disturbance of the heart are too common to render it desirable that an illustrative case or cases should be given here. They would occupy too much of the space at my disposal.

There are other cases of a more aggravated nature, where the whole nervous system is unstrung, but where the chief complaint is of the heart. Such cases are most marked and most commonly seen in women. Instead of going over the general symptoms of such cases, I prefer to relate a typical case, the more illustrative as it demonstrates what treatment may do for these sufferers.

M. H—, aged forty, a married woman with children, was brought to me at the West London Hospital on the 4th March, 1875, by my colleague, Dr. Wiltshire, as a case that would interest me. She was a woman of good physique, and intelligent beyond the majority of women of her class in life. The most marked symptom about her was an expression of uneasiness and apprehension. She was afraid of all and everything. She was afraid to be left at home; she was afraid to go out. If a knock came to the door it would give her such a start, and bring on such an attack of palpitation, that frequently she could not get across the floor to open the door. On account of its effects, especially upon her heart, she had been obliged to give up all intercourse with her husband for some years past. She always suffered from severe headache at every catamenial period. Life she described as having become a burden to her. She was put upon a mixture of bromide of potassium and digitalis in infusion of cascarilla. To regulate the bowels, she had some pills of aloes and myrrh. There were no derangements of the generative organs. Improvements speedily commenced, and on April 13th she declared herself much better. On May 13th she reported that she had escaped the habitual nervous headache at her last catamenia. It was now determined to try the addition of quinine; and a mixture of quinine, hydrobromic acid, and digitalis, in infusion of cascarilla, was substituted for the first mixture. On June 2d she reported herself as feeling much better. She got good rest at nights; she had scarcely any palpitation, suffering less therefrom than she had done for years; the feeling of numbness extending down the right arm and hand, with which she had been troubled, was much better. For eleven years past she had not been able to walk so well as now; in fact, she described herself as feel-

ing quite another woman. In the latter part of June she had a child ill, and was much harassed by this; yet she had not suffered from palpitation, and had no longer occasion to sit on the stairs when half-way up, as before. No nervous headache at the preceding catamenial flow. She continued to improve in every respect, but at her catamenia in July she again suffered headache from neglecting her bowels; at the next menstrual period she attended to this, and had no headache. On September 9th she described herself as feeling quite "brave;" she could cross streets, or stay at home alone at nights without discomfort, her husband having been from home for a fortnight. On October 7th she said she felt extremely well, and that she could resume her duties as a wife without discomfort. In November she said she could go to the city, and felt "quite independent at the crossings;" and, finally, in December she reported herself as feeling quite well, and asked to be discharged. Along with this general improvement her heart has become perfectly quiet, and its tumultuous stroke was exchanged for a normal beat. The look of dread and apprehension, which she wore when first seen, gradually disappeared; and in its place there grew up a look of recovering self-reliance quite in accordance with her subjective sensation. I saw the patient on December 10th, this year, and she was quite well in every respect, except headache at the catamenial periods. During the interval she has been actively engaged in her business of dress-maker.

From its general surroundings, this case of neurosal affection of the heart was one where such rapid improvement could scarcely have been looked for; nor can such happy results be attained in every case, nor even in a large proportion, when of such long standing. Nevertheless, such a case gives great encouragement to pursue a definite line of treatment in similar cases; and much relief may be afforded even when anything like complete cure, as above, is unattainable.

In connection with irritable heart must not be forgotten the effects of tea-drinking. Amongst the out-patients of hospitals this is more especially the case than in private

practice; though it is far from unknown in the latter. The active principal of tea—theine—is a powerful neurotic agent, and when indulged in to excess has a very decided action upon the cardiac ganglia, rendering the heart irritable, excited, and unrhythmical in its contractions. In such cases the withdrawal of the tea is absolutely essential to successful treatment. Looked at from a chemical point of view, the principles of coffee and of cocoa are closely allied to those of tea; and it seems difficult to understand how the symptoms produced by excessive indulgence in tea are relieved by substituting for it these other allied vegetable principles. Still clinically the fact remains. It is said that tea contains, in addition to its principle, theine, a volatile intoxicating oil; and it may be the presence of this agent which makes the difference.

Another vegetable principle exercises a decided effect upon the heart—viz., tobacco. The effect of tobacco is to render the heart's action quicker, its beat feebler, and to promote a liability to palpitation. In the Royal Infirmary of Edinburgh this form of neurosal affection of the heart is recognized and known as "smoker's heart." In many cases this condition arises from great indulgence in strong tobacco; and very frequently the substitution of a lighter form of tobacco in moderation is sufficient to afford relief, without the abandonment of the favorite habit. This form of nervous affection of the heart is not so common, however, as that produced by tea.

In other cases there exists great irritability of the heart, which is closely connected with some irritation elsewhere. Several writers, and especially Botkin, of St. Petersburg, assert the pernicious effect of co-existent irritation elsewhere upon the heart; and insist that such source of irritation be totally removed, or, where that is not practicable, relieved as far as may be. Some little time ago a well-marked instance of such source of irritation came under my notice. The gentleman was the most excitable person imaginable. His heart was going at a pace which defied any correct estimate, but as a rough statement it may be said at about 150 beats per minute, with exalted action. In this case there existed great prostatic irrita-

tion, and whenever this was very troublesome the heart's action was always worse. The patient had been at Carlsbad, Homburg, Tarasp, and elsewhere, and been under many leading practitioners at home and abroad without any benefit. He could not be induced to give a systematic line of treatment a fair trial; consequently whether it would have been successful or not cannot be positively affirmed. In such cases there would seem to be either some abnormal activity about the accelerating ganglia of the heart, or else some derangement in the inhibitory action of the pneumogastric.

A case of totally opposite character is supplied by a young gentleman now under my care. He is a tall, well-developed youth of active habits, and probably the first derangement of his heart's action took its origin in some overstrain, which has left the heart with perturbed action. He suffers from palpitation, but when seen his heart has always been beating steadily. There is, however, an occasional halt, which is distinctly felt by him, and which he describes as very unpleasant. By accident it was discovered that when set thinking the rate of his pulse became altered. I sent him on to my friend, Dr. Broadbent, who found that when talking to him about his case several intermissions took place; and on asking a question involving some thought a gradual slowing of the heart's action was produced, but no intermission. He was put upon a combination of bromide of potassium and digitalis, and has improved in every respect. He complains, however, of still feeling intermissions when thinking hard. Here it is obvious that when thinking the vagus is excited to action, and so inhibits or retards the action of the ganglia of Remak.

A distinct class of cases have been described by Da Costa, of Philadelphia, which he has denominated "irritable heart," and which are now well known. They were first noted in men serving in the severe campaigns of the American civil war. The sufferers were unable to march with their comrades, had dizziness and palpitation, with pain in the chest. The pulse-rate was much affected by position, varying from 110 when up, to 80 when lying

down. Such cases do not present themselves to our notice in this country in any frequency; and I can only recall one case where the symptoms of irritable heart, as given by Da Costa, were well pronounced. In this case much good arose from the administration of digitalis and bromide of potassium together.

At other times instances present themselves where there is much excitement in the heart's action combined with a generally anæmic condition. Here there is a hæmic murmur at the pulmonary orifice with palpitation at intervals. These cases are usually furnished by girls. Here digitalis and the bromide of potassium are inferior in utility to tonics, with hæmatics, and attention to the leucorrhœa, which is almost invariably present. The diagnosis of these cases is not difficult; there is the objective sign of palpitation, the hæmic murmur, the *bruit de diable*, and the obvious anæmia. The subjective symptoms are—shortness of breath, especially when going up stairs, due to the deficiency of red blood-corpuscles; palpitation; and often general nervousness with vertical headache. In such cases there is often menorrhagia as well as leucorrhœa, and attention to these matters is absolutely essential to successful treatment. Some time ago a young lady was sent to me from Torquay with the above symptoms. Her medical attendant saw that she was pale and anæmic, and found a systolic bruit, whereupon he sent her up to town for further advice. The heart symptoms here were quite a secondary matter, and the true line of treatment to be adopted was that of attention to the general health.

Such are some of the forms of disturbance of the action of the heart met with in practice, without actual organic change being present. They may have different and varied associations; but the source of the disturbed action must doubtless be sought in the nervous arrangements of the heart itself. These are very much more complex than is ordinarily supposed. There are, first, the cardiac ganglia themselves, by which rhythmical movements can be carried on when the heart is removed from the body. Then there is, next, the controlling or inhibitory action exer-

cised by the pneumogastric. It is well known that excitation of the pneumogastric nerve will show the ventricular contractions, and, if powerful enough and sustained, arrest the contractions altogether. In animals it is found that the right vagus possesses this inhibitory action more powerfully than the left. Not only is this the case, but there are contained in the pneumogastric certain fibres which possess an accelerating action, and increase the rapidity of the heart's beat. Irritation of the medulla oblongata will cause an acceleration of the heart's beat if certain nerve tracts are uninjured.

Now, amidst these complex nervous arrangements, it is not always easy to distinguish what part of the mechanism is deranged, and concerned in the production of the symptoms complained of. In cases of suspended systole, or intermittance of the heart's stroke, probably there is some irritation in the vagus by which its arresting action is increased. On the contrary, in these common cases of excited and rapid action of the heart it is possible to speculate at will as to how far this increased action is due to impaired power in the vagus—the regulating and inhibitory power being from some cause diminished—or whether it finds its origin in some irritation which stimulates the accelerating fibres. We are not yet in a position to speak very dogmatically about such nervous derangements—with their objective symptoms, palpitation and unrhythmical action. Probably in a few years more this department of heart ailments will become as distinctly intelligible as are the other forms of diseases of this organ; at present each case forms a study of itself, and requires its own appropriate treatment. Consequently it is not possible to lay down axiomatic rules for treatment, as has been done in the preceding articles on primary and secondary affections of the heart. All that may be said is that in many cases relief, and even something more, can be attained by a scheme of medication which consists in the administration of tonics, together with sedative neurotics, as in the union of quinine and digitalis with the bromide of potassium or hydrobromic acid. In addition to these measures it is obviously necessary to place the system as far as possible at rest, both

physically and psychically; and this is to be achieved largely by the avoidance of all forms of disturbance and excitement, especially of a sexual character. The demands upon the system must be reduced to a minimum. We all recognize how important it is to reduce all demand, such as is induced by exertion or effort, upon the heart when its muscular walls are affected. So in neurosial affections of this organ, it is equally desirable that all forms of nervous expenditure be economized to the utmost. In all cases where there are obvious derangements these must be attended to. A misplaced uterus must be replaced; the leucorrhœal flow, so commonly found, must be attended to; if there be any dyspepsia present it must be met by a suitable diet, and vegetable bitters with bismuth; whenever there is anæmia some of the lighter preparations of iron must be prescribed, in small doses at first, and always after food. Mental and physical quiet must be insisted upon; and still more, for successful treatment, the patient must be made clearly to understand that the physician is confident in his power to afford relief.—*London Lancet.*

Editorial.

VOLUME XVI.

With this number we commence the sixteenth volume of the JOURNAL, and by the additional expense in the purchase of new type and a better quality of paper, seek to render it more attractive than heretofore. While this attention has been bestowed upon the dress, we will endeavor not to lose sight of the fact that in the make-up of a journal, the selection and arrangement of reading matter are still more important to success. The great object of periodicals is to afford regularly the reports of improvements and discoveries being made throughout the world. In this way individual members of the profession are enabled to

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keep pace with the advancement of science, and reap advantages therefrom in their efforts to combat disease.

Notwithstanding the imperative demands upon our time and attention, incident to the regular practice of medicine, exchanges and monographs are consulted in order to afford the latest and best items of interest. We may not be a successful caterer and always please, but our labors are directed toward the advancement of medical knowledge. We are gratified in the reflection that we have so far succeeded in our efforts as to secure paying patronage that will authorize continuance of the publication. Several Southern journals have succumbed to the pecuniary depression resulting from war's devastation, and if full compensation for labor in dollars and cents had been the sole object of continuance, this also would have ceased to exist.

By our efforts to improve the JOURNAL, we hope to inspire increased interest on the part of its patrons, and extend the circulation to other paying subscribers. Though pecuniary embarrassment pervades the whole country, and individuals—doctors especially—find their hard-earned dollars coming in slowly, yet the small annual sum from each subscriber required to keep the JOURNAL such as they wish and need, will scarcely be felt. None feel the loss until, by neglecting to pay year after year, the amount increases so as to become rather embarrassing to those with an income barely sufficient to pay yearly expenses.

EXCERPTA.

TREATMENT OF ERECTILE TUMORS.—Dr. Notta, having had an opportunity of treating a large number of erectile tumors, gives his ideas as to the various methods available for this purpose in *L'Année Médicale* (1877, No. 12). He divides them into two classes, cutaneous and subcutaneous. When called upon to treat the superficial variety in children who have not been vaccinated, vaccination offers per-

haps the best method of treatment. A number of needles are dipped into vaccine matter to the extent of six millimetres, and this is allowed to dry. They are then thrust into the tumor to the depth of four millimetres, and at a distance of three millimetres from one another. Care should be taken to insert a row along the line of separation between the tumor and the healthy skin. After remaining in place about an hour, the needles are withdrawn, and some days later the punctured locality becomes the seat of a confluent vaccinal eruption. A month later, the eruption has entirely disappeared, or if there still remains a point here and there, the application of a white-hot needle will finish the operation.

When for any reason vaccination cannot be practiced, the double or multiple-crossed ligature may be employed with success, according to the method of Rigal de Gaillac. The tumor is strangulated by this procedure; the ligatures drop out at the end of four to eight days, leaving a granulating ulcer, which heals slowly. As regards the treatment of subcutaneous erectile tumors, one very good method is that by strangulation with vaccine-impregnated ligatures; other methods are the white-hot needle or the injection of the perchloride of iron. Dr. Notta continues his observations in a subsequent number of *L'Année Médicale*, and gives other methods of treatment.—*Philadelphia Medical Times*.

ALBUMINURIA DURING PREGNANCY.—C. H. Petit (*Centralbl. f. Med.*, 1877, p. 784, from *Annales de Gynecologie*) finds albuminuria a frequent condition during pregnancy, labor, and after delivery. Usually it appears during labor rather than in pregnancy. The albuminuria of labor is to be distinguished from that of pregnancy; young primiparæ are particularly disposed to it. The larger the child, the more abundant is the proportion of albumen in the urine. *Philadelphia Medical Times*.

FRENCH CRITICISM OF OUR SPECIALISTS.—Formerly the object was to prevent specialists in medicine, but times have changed greatly since then. The Academy and Faculty have abolished the kind of ostracism, whose victims

they were for a long time. But we have not progressed so far as some foreign countries.

We find, in looking over the American journals, the announcements of certain faculties where all the chairs are occupied by specialists, whose enumeration is often curious. Thus, there is a professor of the anatomy of the ear, a professor of the physiology of heart diseases, etc. We do not find the name of a single professor of anatomy or pathology.

But there are, let it be remarked, besides these interlopers, good schools, whose professors are in no respect second to those of old Europe.—*La France Medicale*.

QUININE EXANTHEM.—Prof. Herman Cohn, of Breslau, reports a case of quinine exanthem occurring in a patient who had the prodromal symptoms of glaucoma and for whom he ordered quinine to reduce tension. On the same evening, after having taken 0.15 gr. (2 grains) of the quinine, the patient was attacked with a heavy fever, puffiness of the entire face, a scarlet eruption upon the breast, abdomen and legs. In fact, the case presented the characters of scarlet fever. The author regards the case as of the same nature as the one by Prof. Heinrich Kobner (*Berl. Klin. Wochenschr.*, 1877, No. 22, 23).

This was a case of a man who was supposed to have had three attacks of scarlet fever in a year, but Kobner showed that the cause each time was excessively small doses of quinine. The eruption occurred the first time after 0.225 ($3\frac{1}{2}$ grains) of sulphate of quinine, and under the continued use of 1.275 (19 grains) of quinine, the flush continued eight days and the desquamation six weeks, on the soles of the feet for nine weeks; the highest and most persistent fever and the deepest prostration. The second time after 0.15 (2 grains) of quinine, exanthem four days flush, desquamation from five days on, course shorter and milder. The third time after 0.1 ($1\frac{1}{2}$ grains) quinine, exanthem flush for two and a half days, desquamation beginning on the third day, ending in two weeks, the shortest and mildest course.

Kobner mentioned four such cases as having been reported in the *British Medical Journal*, 1869-70, and briefly

mentions the case of a physician of Breslau, who had a scarlet rash with a three weeks' desquamation, after taking 1 gr. (15 grains) of quinine. Prof. Hirt claims that only blondes are attacked with quinine eruption. Kobner makes no mention of the color of the hair. Prof. Cohn's patient was a deep brunette. Most of the patients had formerly suffered from skin affections, and Prof. H. remarks that it would be well before ordering quinine to ask the patients if they had now and then had erysipelas.—*Cent.-Bl. f. praktische Augenheilkunde.*

CONCERNING DIPHTHERIA.—This widely prevalent disease is one of the leading topics in medical journals at present, and we need make no apology for the prominence given to it in our own columns. The modes of treatment suggested are of the most varied character, and time alone can show which are, on the whole, the best. "The survival of the fittest" is pretty certain in the long run. Dr. A. Bachelder, of Pelham, N. H., sends us the following brief note on this subject:

"I wish to suggest to physicians, in treating diphtheria, to use internally a very weak solution of carbolic acid, and for the throat or fauces a solution of hydrochloric acid, about the strength of strong cider vinegar. I have treated every case successfully, so far, with the above-named remedies. Croup is relieved instantly with the acid solution. As far as my experience goes, the last-named remedy stops all morbid development in the throat as surely as the hoe will stop pig-weeds in a hot, sunny day. Apply it to the throat with a brush or sponge, or use as a gargle."

A correspondent in Alabama writes that in a case of diphtheria in his own family, he took equal parts of black pepper and common salt, pulverized them finely, and with a mop applied the mixture directly to the throat. "The effect was magical," and the patient rapidly recovered.

Another correspondent in New York says that he has often tried successfully the method recommended by Dr. Field in an English medical journal, of gargling the throat with a solution of liver of sulphur, or letting the patient inhale the fumes of burning sulphur.—*Boston Journal of Chemistry.*

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VOL. XVI.]

MAY—1878.

[No. 2

Original Communications.

PUERPERAL ECLAMPSIA.

By A. COUVERT, M.D., OXFORD, GA.

A year or two ago, Dr. John M. Johnson, of Atlanta, Georgia, reported, through the MEDICAL AND SURGICAL JOURNAL, a case of puerperal convulsions, which, in the absence of the family physician, a homœopathic, came into his hands for a short time, and which terminated fatally under the processes of the disciple of Hahnemann. This elicited from Dr. J. the treatment which he considered the most appropriate to such cases. I was much interested in the able and lucid article; and all the more, perhaps, as his advocacy of the lancet and its collateral measures was in such harmony with my own practice, which had yielded such satisfactory results for many years. Dr. J.'s case was brought afresh to mind by a similar one of great violence that came under my care in the city of Covington a few days ago, and which I will present in its most prominent features, avoiding the minor details that so often detract from the interest of such reports.

Mrs. B., the mother of two children, was delivered of the third child, by a negro midwife, on Friday night, 15th of March, 1878. She had had headache before and after delivery, which became so intense by Saturday night that the family physician was called in. An aperient and sinapisms abated the severity of the headache for a time.

About noon on Sunday, she fell into violent convulsions, in paroxysms of rapid succession. The family physician not being found, Dr. Alfred C. Perry, a recent and highly valued accession to the medical brotherhood of this vicinity, was called in, and with chloroform inhalations arrested the convulsions until a consultation could be had, the patient continuing in a state of profound unconsciousness from the first accession. I saw her about 3 P.M., unconvulsed, but still unconscious, presenting the usual symptoms associated with convulsions in a young, vigorous and otherwise healthy woman. I at once appealed to my old and oft-tried friend, the lancet, drew (by estimate) 24 oz. blood, and gave 20 grs. calomel, preceded by morph. hypodermically. Before leaving, we advised enemata of chloral, and brom. pot. if necessary. By the way, I would say, for the benefit of our younger brethren, rationality or even a glimmering consciousness is not necessary in administering calomel, oil, salts, etc., if there is help enough to hold the patient in posture for a few moments. With the power of respiration and deglutition still remaining, a mouth to receive and a nose to be held, almost anything may be given to anybody of any age, without any danger of any sort, as I can testify from ample experience, running back through many years.

But to return from this digression. The effect of our first onset was so favorable that we did not apply a blister to the nape of her neck, extending down between her shoulders, as would have been best, but left, and did not see her again until 9 A.M. next day (Monday), when I learned that she had had several convulsions, though of less violence, during the night, which Dr. P. had kept in check by various judicious expedients. A blister plaster four by nine was now applied to the nape of the neck and down the spine. The calomel, retarded by the opiates, did not act until the blister began to draw, when its cathartic and revulsive effects, co-operating with the counter-irritation and depletion of the blister, cooled the fever, restored the equilibrium, awakened consciousness, and, in short, cured the patient.

Now if, in from 3,000 to 5,000 parturient patients, em-

bracing the usual proportion of cases of eclampsia, these therapeutic measures, properly modified to suit each case, generally yields favorable results, why should we fear them, even if the lancet does usually go in front? It must not, however, be inferred that the new auxiliary remedies that science presents and experience approves should be rejected. I only urge timely and energetic treatment. What physician has not been occasionally embarrassed by the kindly intended but very injudicious interference of the friends of the patient, especially in the higher circles of society, greatly to her detriment? They shun everything that is not soothing or mild. Yet Napoleon the First, great in everything, and as exalted as any of them, told the accomplished Dubose (I think) to treat the Empress, under the impending danger, as he would a peasant. He obeyed, and saved both mother and child.

But I forbear further reflections, although written out, as they would add too much to an article already too long.

CONSERVATIVE SURGERY.

BY JOHN E. WALKER, M.D., GREENSBORO, GA.

CASE 1.—John B. Casselan, æt. 40, while tending a cotton gin, run by steam, had his sleeve caught, and his right hand and arm drawn in contact with the saws. The metacarpal bone of the thumb was exposed, that of the index finger was entirely divided, obliquely, and the metacarpophalangeal joint of the middle finger laid open; the forearm was lacerated in a dreadful manner, and, near the axilla, the skin and cellular tissue were torn off the arm, making a ragged wound, three by five inches, exposing the muscles. The index finger would have been removed but for the wound last described, which it was thought might involve the loss of the limb at the shoulder joint. The hand was adjusted with sutures, plaster and splints, as well as the circumstances would admit. The treatment consisted of solution of carbolic acid, which was constantly applied, by means of soft cloths—the fingers were semi-

flexed, and a ball of cotton placed in the palm for support—an anodyne at night to procure rest. An excellent cure resulted. The hand performed every function necessary, the index can be extended by the aid of the middle finger. The subject commands first-class wages as a laborer, or railroad track repairer.

Hamilton Jackson, colored, æt. 18, was caught by a loose car-brake, while attempting to couple a train, and received injuries of the left arm as follows, viz: compound fracture of humerus near elbow, a laceration just over the elbow joint, and along the front of forearm and hand, compound fracture of middle finger at the second joint. The flesh was torn up in the palm, exposing the fractured bone. I have been informed that an amputation was decided on, but the father, who had been summoned by telegraph, refused to allow it, and brought him to his home in Greensboro, where he was put in my charge. I placed the arm and hand in a gutta-percha splint, curved at an obtuse angle, and kept the whole limb constantly wet with solution of carbolic acid. In five weeks the patient was up, and, in seven, hired as a laborer at half wages—he now commands the pay of a first-class hand. There is partial ankylosis of fingers, but they are so flexed that he can grasp any tool or implement; the motion of elbow not perfect, but sufficient for all practical purposes. The mistake of keeping fingers in a straight splint for like injuries, often occurs, which renders them not only useless, but an incumbrance.

Sam. Colb, colored, æt. 70, has had for a long time past an irreducible scrotal hernia. When seen, had been suffering with retention of urine for two days. Catheterism attempted, which failed, after persevering more than an hour. The bladder was greatly distended and the pain excruciating. Believing the difficulty was caused by an enlarged prostate, I decided that relief could only be obtained by puncture, but this was objected to by patient, and I left him unrelieved. In two days I was again called, and found the patient willing to submit to anything that promised relief. I again tried the catheter, with no better success. I then tried a male steel sound, which, after some

delay, passed into the bladder; it was allowed to remain for a short time, then removed and the catheter again tried, which was introduced with very little difficulty, and the bladder relieved. This was repeated in the afternoon, and then twice daily for forty days, at the end of which time there was stilicidium, which increased until the use of the catheter was no longer necessary. In a short time he was able to retain and pass the urine at will. This old man lived more than two years, and died from other disease—never having had a return of the urinary difficulty. I have since used the same practice in other cases with equal satisfaction, sometimes employing the metallic bougie instead of the steel sound.

VALEDICTORY ADDRESS TO THE GRADUATING
CLASS IN ATLANTA MEDICAL COLLEGE, AT
THE ANNUAL COMMENCEMENT, MARCH 1, 1878.

BY R. N. ELY, ATTORNEY GENERAL OF GEORGIA.

GENTLEMEN—The part assigned me in these interesting exercises will occupy but a few minutes of your time. It is not to be expected that I should know any thing of the great science to which you are to be votaries, excepting in a very general way; but if I can drop a word of cheer and encouragement; if I can let fall some hint that may be of practical benefit to any of you, either in rendering less rugged the road over which you are to travel, or in enkindling in your hearts an increased enthusiasm for the work you have undertaken, then, indeed, shall I be glad that I am accorded the privilege of addressing you on this occasion.

You are now standing upon the threshold of active life. All of the past has been but a season of preparation for this hour. As neophytes, you are about to be enrolled in that grand universal army in which battles are to be fought, victories won, and defeats endured.

The business to which you are mainly to devote yourselves has been defined to be "the art or science of curing disease." Of two young men who commence life with

equal capacities, and with other supposed equal conditions, it may be safely affirmed that success shall more abundantly crown him who enters upon his profession and pursues it from the motive of a love for that profession—not merely for the purpose of making money out of it, nor by means of it to weave garlands of fame to bind his brow, but because he loves it for its own sake. Love is but a little word of four letters, and yet it is a big word. It is the cohesive power that holds the world together; nay more, it is the grand principle which, proceeding from the throne of the Eternal, binds into harmony the system of worlds in the universe. It is the connecting link between man the creature, and God the creator.

Love of your profession will sweeten that labor, and make pleasant that toil by which alone you may expect to attain marked success. It is the intention that enables the dull and plodding to achieve results that genius can never hope for without it. It is love for the work in hand they have to do, that is stimulating and drawing forward men of science all over the world by constant toil and earnest thought, to add to the stock of knowledge and civilization. Then, gentlemen, go not forth to the discharge of your duties like a lazy, reluctant school-boy, driven to his book by the lash, but go forth heartily, cheerily and delightedly. He who constantly dreams

“Of cutting foreign throats—

Of breaches, ambuscades, Spanish blades,”

is fitted for the life of a soldier. So, let your profession be your thought by day and your dream by night; let it be, so to speak, mistress and sweetheart to you; let “the castles in air” you build be filled with native contributions that you are to bring there and place upon the altar of human progress and happiness.

Certainly the profession you have chosen is such as to stimulate the ambition of the noblest minds. What similar pursuit can compare with it in dignity and importance? Life is but a burden without the boon of health. At any moment we may need the services and the skill of the physician. He it is who helps us to land safely at “Port Natal;” he it is who attends us all along the voyage

of life, and when its "fitful fever is o'er," he it is who smoothes our passage to the tomb.

The stoutest hearts, when disease overtakes them, are ready to dispatch a messenger in haste for the "dear doctor." Be prepared, gentlemen, to respond to the call with skill and alacrity. As long as happiness and health are so closely allied, it is impossible to overestimate your calling, or to set limits to the sphere of your usefulness. From the ninth to the thirteenth centuries of the Christian era, the persecuted Jews were the sole repositories of what little medical knowledge Europe possessed; and, hence, despite the laws which forbade them to administer remedies to Christians, we are told that they obtained access to the homes of the wealthy, to the courts of Sovereigns, and even to the palace of the Roman Pontiff.

Gentlemen, how can you fail to be in love with your profession, when you reflect upon the nature of the objects upon which you are to exercise it; when its duties are constantly enabling you to perceive "what a piece of work is man; how noble in reason, how infinite in faculties; in form and moving how expressive and admirable; in action how like an angel; in apprehension how like a God; the vanity of the world, the paragon of innocence?" You find him wasted by disease; your skill restores him to health and vigor. It is you who lead him by the hand from his sick room, to enjoy the glorious light and heat of the sun to breathe the balmy air of Heaven, and to go on his way rejoicing, like gladsome birds, that the rosy hue of health has come again to his cheek, and strength to his limbs.

Wherever the cry of distress is heard from disease, there is to be your place. Your mission is "to open the eyes of the blind, to unstop the deaf ears," and to say to the bed-ridden, "Arise, talk up thy bed and walk." With reverence I say, your vocation partakes more of the godlike than the merely human character. Love, then, your calling—love your fellow-man; then will your lives be grand successes.

Disease in its loathesome forms; abject misery in its degraded condition, might excite disgust in the refined

sensibilities of your natures, but this talisman, love, worn in your hearts, will cause you to forget yourselves and to be interested only in the duty of relieving pain and suffering. It will enable you to endure the "winter's cold, the summer's heat," and to keep sleepless vigils by the bedside of the lowly and poverty-stricken. It will give you the soft tread and low and gentle tone of voice in the sick room, and the ear quick to catch the faintest symptom of a change in the patient's condition.

Disease in all its forms—pain and suffering—are your enemies. Combat with them, exterminate them, if possible; but their subjects, the human beings upon which they prey, are your friends. Love and cherish them as with a mother's tender care. Let their dependent state, and their implicit faith in your skill, be incentives to prove yourselves worthy the exalted trust. Be assured, gentlemen, you shall not be without a reward for your well-doing. The consciousness that you have been the means of making the sick well, shall be a source of happiness. There will be grateful hearts all around you to call you blessed.

Reputation, fame, glory and wealth lie scattered in the path before you. These are the prizes for which you are to contend; and fidelity, zeal, intelligence and patience are the means by which you are to grasp them.

The science of medicine is a vast field, which has been partially explored; there are zealous workers in that field all over the world. Be you, gentlemen, of that number. Whilst diligently attending to the routine of your daily duties, never forget that the practitioner of medicine owes a debt to the cause of science—to the world at large. Grand truths may be eliminated from observations made in single cases. If there is any science in your calling, it is only because disease has its laws, and that it may be counteracted and prevented by bringing to bear on it other laws that are superior to it. Be diligent in ascertaining what those laws are, so that you may benefit not only those who are in your narrow sphere, but also those whose faces you may never see—all mankind; and thus, gentlemen, will you make glad, also, hearts that beat in climes other than your own.

Gentlemen, may you have many patients; may none of them ever die, but may they all live to reward you with grateful hearts, and what is, perhaps, better, fat fees for your skill and fidelity.

VALEDICTORY ADDRESS FOR THE GRADUATING
CLASS IN ATLANTA MEDICAL COLLEGE, MARCH
6, 1878.

BY GEORGE W. BLANTON, M.D., DALTON, GA.

Honored Professors, Fellow Students, Ladies and Gentleman:

By the kind partiality of my comrades, I have been honored with the duty of speaking a farewell word on this occasion.

You, my fellow-students, are aware of the difficulties which we have so far encountered. There was a time in my own experience, not long after beginning the study of medicine, when my untutored faculties were contending with the intricacies of anatomy, that I thought the obstacles to this occasion insuperable. But these initiatory difficulties, while only a faint indication of what is necessary for ultimate success, are at least in the past; and since they have been met and overcome, they are an omen of success in the future, if that future is marked by the same faithful effort that has characterized the past. As we stand to-night, on the threshold of practical life—more practical to the physician than others—it is but natural that bright anticipations of sickness—other people's sickness; of fees—paid by other people; of physic—swallowed by other people; and of—of *wives*—other people's daughters—should fill our minds.

To you, our honored educators, these difficulties of which we have been speaking appear as the toys possessed by the old man in childhood, and these bright anticipations as practical reminiscences of the past, or as stern realities of the present. We are indebted to you for your assistance in reference to the former, and beg you to lend us a helping hand in the latter.

The large audience with which Atlanta has honored this occasion, the liberal hospitality with which our stay here has been crowned, the many privileges she has extended to us, make us know that she has felt the deepest interest in our success and the permanent prosperity of our Alma Mater. We are proud to feel confident that her people would have sympathized with us in our day of probation to which we have alluded, and that she is thoroughly capable of appreciating the radiant hopes we cherish for the future. For one, I am proud of Atlanta, and I am sure that in so speaking I express the sentiments of every student of the Atlanta Medical College. We are proud that our Alma Mater is in Atlanta, with her energetic, intelligent people, her commerce and manufactories, her schools and her churches; that Atlanta is in Georgia, and that Atlanta is the capital of the State of Georgia, with her honest government, good laws, splendid climate, and productive lands, tilled by a thrifty, intelligent people; that Georgia is in 'the South, with her mineral, agricultural, social and religious advantages, such as are not enjoyed by any other people under the sun. I believe in that kind of patriotism which builds up home institutions, and I believe such a patriotism is the wisest of policies. As a commercial people, we can never attain the success we desire until home merchants and manufacturers are patronized. As an agricultural people, we shall never be properly enriched until our implements are manufactured at home, our products are sold here, worked into fabrics here, purchased here, and worn here. As a manufacturing people, we can never know our proper prosperity until our power is utilized, until many more of our enterprises are pushed by steam, and until we look no longer to the North for our implements. When Southern mines are worked by Southern capitalists; Southern fields are tilled with implements of Southern manufacture; Southern products are manufactured and worn by Southern people; and Southern institutions of learning are patronized by the brave young men and fair daughters of the South—then, AND NOT TILL THEN, will we ever reach the measure of prosperity which is ours by right, and assume that posi-

tion in the government of national affairs, for the want of which we have suffered so much during the last decade.

Why should not such a thing be? I am sure it will be granted that our agricultural, manufacturing, mineral, social and religious advantages are as good as those of any other section of this continent; and if any doubt that the advantages of our literary, scientific, theological and medical institutions are not so good for fitting young men for the highest measure of usefulness and success, they have not taken the pains to investigate the subject, and are ignorant of the greatest blessing God has given us. I go a step farther, and maintain that for all that constitutes real success, if a young man is to live in the South, a Southern education better prepares him than one he could gain anywhere else, on this or any other continent. Any one who has observed much of the "eternal fitness of things," or the law of "cause and effect," and will give this proposition careful investigation, I am sure will agree with me. Taking it for granted, then, for the sake of argument, I ask, why is it that our institutions of learning do not have that patronage they deserve? Every thoughtful man must see the cause in those delusive dreams of some superior good which exists far from our homes. Distance lends enchantment to the swelling advertisements and fairy-like tales of the splendid advantages of institutions of other sections.

Lest some should mistake an indirect apology for an institution which can and does stand upon its own unrivalled excellence, for the point I am trying to make, I push it no further. Let none imagine that I am the apologist or eulogist of the Atlanta Medical College, for I have not been appointed to the task, and she needs not such an effort, even from the most gifted, since her equipments, her corps of professors and her previous history are her highest eulogies.

In this parting address, I do not feel that I would fully represent the sentiments of my comrades were I to fail to express to our beloved professors our warmest thanks for the efficient and untiring manner in which they have instructed us. We respect you for your ability, we honor

you for your faithfulness, and we love you for your interest in us and your efforts in our behalf. It is our wish that your halls may be filled with students, your larders supplied with the fat of the land, your purses "burst out with new money," that you may never grow less in body or soul, "that you may live forever, and that we may never die." We shall go hence feeling that it was a privilege to be under your instruction, to feel the influence of the spirit that animates you, and we would be insensible to the powerful influence of example were we to leave these scenes, content with small measure of success. As we gaze far up the inclined plane that separates us, we are inspired with the motto, "Onward and Upward," for—

"Lives of great men all remind us,
We can make our lives sublime;
And, departing, leave behind us,
Footprints on the sands of time."

You and I, my fellow students, are to leave here to begin life in earnest; some of you may return, but some of us can say with the school girl, and with her meaning, "our school days are sadly o'er." As we enter the practice of our profession, we should be impressed with its importance. Every reason for virtue and intelligence that can apply to any calling, applies to ours. The nature of our work will invest us with extraordinary influence, and he who exercises great influence carries fearful responsibility. No man who refuses to see and feel this is fit for such a noble work. To a certain degree, the bodies of immortals are in the physician's keeping. In him is reposed the most sacred confidence of vital importance; to him are opened all the divinely appointed and most sacred secrets of family life. His presence is eagerly sought in scenes of sickness, suffering and death. His mission is to ameliorate the ills of life, and in his calling a well stored mind, an unblemished character, a strong will, an affable disposition, a kind and sympathizing heart, are among the many indispensables. The wonderful accumulations of knowledge in the science of medicine, the multiplied and multiplying facilities in its practice, demand ceaseless application to the study of the theory and practice to which

our lives have been consecrated. We carry a part of the reputation of this institution upon our shoulders. Where we live she will be judged by our success or failure. Then let us be *worthy* of her. We will come in contact with the prejudice of many who practice a combination of ignorance and physic. Here we will need the wisdom of a serpent to protect the profession, and yet the harmlessness of a dove not to injure ourselves. I recently heard of a young *doctor* who had never attended a course of lectures, but was doing such practice as he could get. Being called into consultation with two physicians, he waited until they pronounced the patient "convalescing," whereupon he said, "Pshaw, *convalescence* is nothing; I've cured that many a time." His wisdom is only equaled by that of the school boy who wrote a composition on "pins," and said, among other wonderful things, that "pins had saved the lives of thousands of people." His teacher asked how, and the sage reply was: "Why, by not swallowing them." In the same manner I hope the medicine of the uninformed "quack" may save the lives of thousands.

The demands of social life, the capabilities of our mental faculties, the proper appreciation of the science of medicine, all call for general culture in the physician. He who boasts that he knows only medicine, does not know that. Away with such notions! Let the custodian of the lives of immortals utilize every source of information. Should he fail of his duty in this regard, how monstrous the crime!

"Methought the billows spake and told me of it;
The winds did sing it to me, and the thunder,
That deep and dreadful organ-pipe, pronounced
The name, 'Miscreant!'"

Were there a necessity I would insist that in our life-work, we should be inspired with a noble patriotism. Politicians are not our only patriots. There are many who love their country with a crowning devotion who do not manifest it in a political career, and it has come to pass in American politics that he who loves his country best, deals not in politics. In the highest, best sense of the word, let the physician be a patriot. He has as many causes as any

other man to love his country, and many of them have more—those who live in a *sickly neighborhood*. We, of the Sunny South, notwithstanding the bad fortune of the late war, yet have the best country in the world. To her sons, her hills and dales, her flowers and fruits, her developments, and *her daughters*, should be more attractive than all else beside.

"Lives there a man with soul so dead
Who never to himself hath said,
This is my own, my native land?"

"Where'er I am, whatever realm I see,
My heart untrammelled fondly turns to thee.
I love thee next to Heaven above—
Land of my fathers, thee I love!
Then let them slander as they will,
With all thy faults, I love thee still."

But, ladies and gentlemen, propriety suggests that I should not further occupy your time. And yet, I am loth to say farewell to these brave sons and fair daughters of Atlanta. Our stay in your midst has indeed been pleasant, and your kindness finds appreciation in our hearts. We will leave you your friends and admirers. We are proud of you as the people of our capital. We are not so narrow minded as to be envious of your prosperity, for it is ours; the glory of the head is the glory of the members. We shall watch your development and progress with delight, and expect you to become the mistress of the South. In taking leave of you, we have but one request to proffer. The interests of our Alma Mater are largely in your hands. Our farewell word is, let her share in your blessings.

To you, honored professors, it is sad to say farewell. True, it is not such a painful reflection that the headaches of the lecture room, the slight sensation of first experience in the dissecting room, and the terrors of the "green room," are all over; but we cannot leave your faithful tutorage and resign your personal advice and counsel without deepest regret. We would have you know that whatever measure of success we meet in life, we shall owe much of it to you. We fain would feel that we go hence retaining that interest you have so kindly taken in us.

Our wish is that your health may be good, your lives spared long, and your labors crowned with that success they so richly deserve.

For you, my comrades, I have reserved the last sad farewell. Our association has been most delightful. When your names are seen in the future, memory will gather around them all the halcyon recollections of these happy days. May the future hold in store for you the full fruition of your fondest hopes. In your unremitting toils, may you be regaled by the opening flowers of success and the full fruit of your best efforts. In the day of adversity put on indomitable perseverance; in times of success work as if adversity drove you to the task. Be never afraid to do right; fear nothing but your God and to do wrong. And may you, one and all, be soon cured of the multiplied ills of single-blessedness, in this life, and in the world to come, may you find a home where there are no *doctors*, is the farewell wish of your unworthy Valedictorian.

Reports of Societies.

ATLANTA ACADEMY OF MEDICINE.

J. G. WESTMORELAND, M.D., REPORTER.

ATLANTA, GA., April 1, 1878.

Vice-President J. T. Johnson in the chair.

Dr. Calhoun reported the case of a man fifty years old having hypertrophy of the epiglottis. This part has a granular appearance, with excessive secretion of mucus. The aretinoid cartilages also partake of the diseased condition, leaving, however, the vocal cords nearly quite natural. The history gives no reason to suspect cancerous or syphilitic taint. Dr. C. suspects malignant-growth, however, and would be pleased to have the opinion of members.

Dr. J. G. Westmoreland reported a case of injury to a man 60 years old, by being precipitated from a bridge some ten feet high, with a horse and buggy. The accident occurred on Monday, the 25th of March, and he saw him first on Wednesday the 27th. At first the most prominent difficulty seemed to exist in the urethra. A catheter had been introduced and left remaining, but imperfectly conveyed the urine from the bladder. As reported by a physician present at the time of injury, hemorrhage occurred from the urethra soon after the fall, and retention of urine existed until a catheter was introduced. At first the instrument seemed to pass a sufficient distance to reach the bladder without discharging any urine, and only by manipulation with a finger in the rectum so as to press the end of the catheter firmly against the anterior wall of the urethra, could it be made to enter the bladder. This fact, with that of urethral hemorrhage soon after the injury, led to the opinion of lacerated urethra. Evidently a severe blow had been received on the perineum, as the external surface of this part was very dark from the bruise. The catheter was withdrawn sometime during the day on Wednesday, and the urine passed sufficiently free not to require the re-introduction. In addition to the urethral trouble, there seemed to have been serious injury done to the right side of the abdomen and hip. The patient could not be moved in bed without great suffering in these parts. He had been the subject of inguinal hernia of the right side for several years, and was wearing a truss at the time of injury, in the course of which from the groin to the back, the skin was black from ecchymosis, showing that a severe blow had been received upon the truss. Enema of warm water caused the discharge of feces contained in the lower bowels, but no more evacuation could be produced by cathartics and injections of large quantities of water into the bowels repeatedly. Repeated vomiting of dark fluid occurred during Wednesday and Thursday, and the circulation had increased from one hundred to a hundred and twenty in these two days. Though the excessive tenderness usually found in peritonitis was not present, yet there was sufficient evidence of extensive peritoneal

inflammation. On Thursday night opium, which had been used moderately before, was given to almost complete narcotism, with the effect of relieving the vomiting entirely and reducing the pulse to about one hundred beats per minute. This condition remained until Saturday morning, when, with cool, damp surface, the circulation commenced declining in force, and gradually the vital powers gave way until death ensued on Monday about noon. The points of interest in this case are: the nature and location of the injury to the bowels, obstructing the passage of contents of the small intestines, and the cause of the excessive tympanitis which existed from the second day after the injury. Is it not probable that the cæcum, including the illeo-cæcal connection, was in the inguinal canal at the time the truss was forcibly driven against it, and thus so bruised and injured that no passage of fæces could occur? At first a suspicion of laceration of the bowel was entertained, but had been discarded, and that of injury to the illeo-cæcal valve adopted. A *post mortem* will probably be obtained.

ATLANTA, GA., April 8, 1878.

The President, Dr. J. F. Alexander, in the chair.

Dr. J. T. Johnson reported a case which he had seen in connection with Dr. Pinckney. The case was a man 52 years old, having typhoid symptoms, with alternation of constipation and diarrhœa. A tumor in the right illiac fossa, was discovered, and, proving a permanent and increasing enlargement, its contents were tested with the aspirator and found to be offensive pus, of which a considerable quantity was discharged, by an incision with bistoury, greatly to the relief of the patient. He has improved decidedly since the evacuation, and hopes are entertained of his recovery. The abscess was supposed to be connected with the cæcum or appendix.

Dr. J. G. Westmoreland reported the result of autopsy in the case of fatal injury reported at last meeting, as follows:

A circular cut was made just above the pubis, so as to raise the abdominal wall in front, exposing the viscera

completely. The whole peritoneum lining the cavity in front was extremely dark from congestion and inflammation; also that covering the right iliac fossa and psoas muscles. The entire cæcum, three or four inches of the ascending colon, and several inches of the illium exhibited evidences of a high degree of inflammation. The same dark appearance was found in the mesentery connected with the small intestines their whole extent, and in various places surrounding the bowel, for several inches in extent. Evidently the cæcum, colon and illium, at their junction, constituted the most prominent point of injury, and to this, as was expected, is certainly due the obstruction to the passage of contents of small intestines through the colon. Whether the cæcum was in the inguinal canal, as was supposed, and injured by a blow received upon the truss, or not, of course could not be certainly ascertained, but from the external discoloration being of the shape and in the position of the truss, such would seem to be the most reasonable conclusion. The bladder was found pretty firmly contracted, and showed less signs of inflammation than the peritoneum above.

Dr. Baird, in answer to an inquiry from the President, said he had only had an opportunity of testing the value of vaccinia as a cure for whooping cough in one case. A girl aged four years, the child of intelligent and cultivated parents, had suffered for two weeks from the disease. The paroxysms were frequent and violent. He vaccinated her upon the arm. The vesicles were beautifully developed, and after the fifth day the cough lost its characteristic whoop, the paroxysms became less and less frequent and severe, and long before the formation of the crusts, the child—with the exception of an occasional slight cough in the evening—appeared perfectly well. He was not prepared to say that the vaccination had effected a cure though the parents of the child expressed the greatest satisfaction with the results and are firm believers in its efficacy. One case proves nothing, but taken in connection with others is of value, in enabling us to arrive at a definite conclusion in regard to this question. He spoke favorably of the inhalation of carbolic acid as a remedy

in whooping cough. In a case recently treated, after the failure of several remedies to alleviate the violence of the cough, marked improvement followed the exhibition of a combination of hydrate of chloral, bromide of potassium, hydrocyanic acid, ipecac. and opium.

BALTIMORE MEDICAL ASSOCIATION.

Society met on the evening of March 11th, with a large number of members present. After the usual routine of business the appointed subject for the evening was called.

Dr. P. C. Williams was to have read a paper on "Scarlet Fever," but stated that sufficient time had not been given to do justice to the subject; under the circumstances the doctor said that he would claim the attention of the Association for only a brief period, during which he would relate an interesting case of scarlet fever.

The patient was a young girl, aged 4, of previous good health. On Monday morning rose at usual hour; the rainy and unpleasant condition of the weather caused the mother to send for a carriage to take the girl to school; before the carriage arrived she was taken with violent headache and vomiting; the mother sent for Dr. Williams, who responded to the call at once, found the patient in the condition described previously, immediately suspected scarlet fever. prescribed for the patient, and left word that he would call in a few hours.

Tuesday, saw the case again, proceeding as well as possible, the vomiting persisting, and toward night the eruption vanished. Used wet blankets, hot whisky punches, prussic acid, and cupping on the spine.

Wednesday, patient uncomfortable; at night, between ten and eleven o'clock, a stripe of a purple color made its appearance. Should have stated that he had called Prof. Christopher Johnston in consultation in the morning, and when this stripe made its appearance, sent for him again. They noticed a white streak on the face also; the heart beat very feeble; gave stimulants without effect; resorted to the hypodermic use of whisky; the patient got quite

comfortable. In the meantime, a most offensive discharge made its appearance from the nostrils, fauces, etc., which increased towards morning.

Thursday morning, met Prof. Johnston, who gave up the case as hopeless, and ceased his visits. Determined to do whatever was possible to relieve the little sufferer, prescribed salicylic acid, 10 grains, every three hours, mixed in a solution of liquor ammoniæ acetatis. In three hours, saw the patient, and found the fetor much less. In six hours, discharge ceased. Remained all night with the case.

Friday, sent for Prof. Johnston, who was much gratified at the change in the patient, who has progressed favorably since that time.

Dr. Williams, on remarking on the case, thought that the patient went through three critical periods:

1. In disappearance of the eruption relieved by baths, cups, etc.

2. Debility and excessive prostration, combatted by hypodermic injection of whisky.

3. The suppuration and fetid discharge from nostrils and fauces, relieved by the use of salicylic acid, which Dr. Williams has used for the first time in this class of cases, and on that account could not claim it as a specific in this disease.

Dr. Gilman expressed himself gratified at the relation of the case by Dr. Williams, and he heartily endorsed the use of salicylic acid in scarlet fever and diphtheria.

Dr. J. R. Uhler said that he thought he was the first physician who had used the hypodermic injection of whisky in Baltimore. It occurred at the Alms House in 1866. He had used it with wonderful results. He also thought that some of the beneficial results following Dr. Williams' treatment resulted from the liquor ammoniæ acetatis.

Dr. Jos. T. Smith asked Dr. Williams how the salicylic acid acted.

Dr. Williams thought that it acted directly on the fauces and inflamed surfaces, and also on the blood, as it caused a very rapid disappearance of the peculiar mahog-

any color of the skin. Dr. Williams also expressed himself in favor of frequent and long visits to ill patients, and in many cases remaining all night, giving the medicine personally, and said he certainly could refer to cases where his personal attention had saved the life of the patient.

On motion, the subject was dropped, and the executive committee reported that Dr. Quinan would lead at the next meeting, and Dr. L. E. Gibbons at the first meeting in April.

On motion, society adjourned.

MEETINGS OF BALTIMORE CLINICAL SOCIETY.

Regular meetings of the Clinical Society have been held the last month, with full attendance of members, who have manifested an unusual degree of interest in the proceedings.

Dr. Michael showed specimens of ankylosis of the knee and hip, from subjects brought to the dissecting room. The specimens were prepared by dividing them with a fine saw, thus beautifully showing complete ossification of the joints.

Dr. Theobald showed two foreign bodies removed from the external auditory meatus of children about six years old. One was a black-eyed red bean, the other a coffee grain. Attempts to remove them with syringes and forceps had resulted in pushing them still further in. Dr. T. deprecated the use of forceps in such cases, but recommended a probe bent at a proper angle. By gently pushing the bean from behind, it could be rolled over and over until taken out. An anæsthetic must be taken to insure success. Dr. T. also related a case of glioma of the retina in a boy six years old, which was not apparent on superficial inspection, but was disclosed by the ophthalmoscope. The point of interest was the age of patient.

Dr. Tiffany called attention to the use of wire gauze, introduced by him to lighten and strengthen the plaster of Paris splints. Common wire gauze, such as is used for fly nets is cut into slips and placed up and down the limb on

three sides. The plaster fills the meshes of the gauze and forms a hard, compact mass, much lighter than the common splint and of greater strength. It had been used with great success. If the gauze be not at hand, a layer of iron filings dusted over the plaster before it dries, hardens it, and does not necessitate the use of so great a quantity.

Dr. Tiffany also related two cases of popliteal aneurism treated by pressure.

The first case, a patient æt. 35, who five years ago had a chancre, and went through the various stages of syphilis, on the 19th September, 1876, noticed swelling in his left ham, with pain.

Was found to be two inches larger than the right, and on the 11th, it was possible to make a diagnosis of popliteal aneurism. Two horse-shoe tourniquets were applied alternately, a sea-saw motion being kept up between them as pain in the one or the other became too great. By Christmas there was great improvement. Then the tumor became larger, and flexion was made of the knee. Between the 10th and 18th February, great improvement took place, and on the 22nd no pulsation could be felt, while the tumor hardened.

Veratrum viride and morphia were used in sufficient quantities to lessen the pulse and pain. The aneurism was entirely cured. A noticeable point was the enlargement of all the arteries about the knee-joint, collateral circulation being thus set up, which confirmed the cure.

The second case was that of a very old negro who complained of pain in his right ham. Examination showed enlargement, pulsation aneurismal bruit. Forcible flexion was kept up thirteen hours. The patient was so aged as evidently to be dying of old age, so the prognosis was unfavorable. The tumor disappeared considerably before death, which occurred three or four weeks afterwards. *Post mortem* showed a double aneurism, the upper one being entirely filled with a clot which thoroughly occluded that part of the artery, while the lower one had been ruptured, and contained a clot also.

Dr. T. R. Brown related a case of popliteal aneurism treated by flexion for eighteen days without success. Then

digital pressure and tourniquets were tried. Under this treatment the symptoms subsided, and the patient was doing well, till suddenly, after a week, the knee swelled, the patient became delirious, and ten days after died of phlebitis.

Dr. B. also showed a specimen of malignant disease of the cheek, from a patient who was ninety years old when it first appeared. The age of patient was the point of interest. Also specimens of atheromatous arteries, also two dorsal vertebræ, from the spinal column of Captain Conway, in which was imbedded a minnie ball. The captain was shot while dredging for oysters. When admitted into the hospital, his pulse was 120, temperature 101, and he was overcome by continuous rigors. He could not move his feet, but there appeared to be hyperæsthesia of the skin. Urine retained. *Post mortem* showed hypostatic congestion of lungs, innumerable abscesses of integument, and also large abscess of liver and cystitis, the spleen containing pus. Patient died of pyæmia. The bullet penetrated the spinal column on the right side, between the eleventh and twelfth dorsal vertebræ, and the point protruded into the spinal cord, injuring the cord.

Dr. Tiffany related a similar case of a sailor falling twenty-four feet over a railing of a vessel on his back. The patient died of pyæmia, with symptoms same as in the previous case. *Post mortem* showed no injury to the spinal column, but diffuence of the cord opposite the point struck.

Dr. Michael related a case of a soldier in the late war who was struck by a ball in the sacrum, and is still living. There is paralysis of lower limbs, retention of urine, and recurrence of bed-sores as soon as any pressure is allowed.

Dr. Tiffany, at a later meeting in March, exhibited:

- 1st. Malignant disease of testicles, which appeared eleven months before operation, increased to a large size, pushing aside the penis and other testicle. Another physician had tapped it twice for hydrocele. It was a small-cell sarcoma.
- 2d. Caries of Ilium. There had been a small opening over the left buttock for four years. It was a question whether disease started below in the acetabulum, or above and

worked its way downwards. 3d. Fracture with non-union of Scaphoid bone. Patient had died of disease, a fracture of lower arm being made out before death. Upon examination, no sign of a fracture was found excepting the Scaphoid bone, which was in three pieces. Fourteen years before, the patient had fallen forward on his wrist and hand, causing the fracture. False joints had been formed between the three pieces, and the surfaces rubbed as smooth as polished ivory. 4th. Epithelioma capitis, which appeared three years before death, and increased rapidly, covering the greater part of one side of the scalp. There was no glandular enlargement elsewhere.

Dr. Coskery—a case of gangrene following burn, with occlusion of axillary artery by thrombus.

Dr. Hill—a case of typhoenteritis, with perforation of vermiform appendix. Patient, a German, ate a large quantity of dried apples and cheese, after which was taken down with pain and cramps, getting continually worse. Diagnosis made of foreign matter in appendix. *Post mortem* showed appendix perforated and enlarged, and large abscess, containing quart of pus, extending as far up as diaphragm.

Dr. Atkinson—a case of papillary epithelioma occurring on the thumb, which he had removed with a curette. The result was astonishing, the wound healed so quickly. The ease and delicacy with which the diseased warts were scraped away with the curette made this instrument a valuable one in all such cases.

Dr. Rohe had used the curette with the same success, and extolled the results. Dr. R. also asked the society if any of the members had seen cases of leprosy in Baltimore. The disease is on the increase in the Northwest and among the Chinese in California, and is generally more common than it is usually thought to be. If it be contagious, it becomes an important subject, and he would thank any physician who would report cases to him.

Papers were read on "Ozena," by Dr. Hartman, and on "Latent" Vaginitis, by Dr. B. B. Browne.—*Maryland Medical Journal.*

Selections.

THE PATHOLOGY OF SEBORRHŒA.—Some time ago, while investigating the pathology of certain affections of the skin in which the epithelium plays a prominent part, I had occasion to examine microscopically the product of disease thrown off in the various forms of seborrhœa, as found in different parts of the body. Somewhat to my surprise I found the epithelium to present a different character in some cases of the affection known as seborrhœa sicca capitis from that shown in the other forms of seborrhœa. In a brief account of these investigations published last year I expressed a doubt suggested by the results of my microscopic examinations, as to the propriety of calling this affection seborrhœa. "It does not," I said, "consist essentially in an excessive flow of abnormal sebum, but in the exfoliation of the epidermis, (from the stratum corneum) mingled indeed with sebaceous matter to a greater extent than is the case in the other squamous affections of the scalp, but nevertheless presenting epidermis as its principal pathological product." I found myself unable at that time to follow up this statement with any further details, but I propose in the present paper to take the subject up once more, and while noting some facts in the pathology of seborrhœa in general, to attempt in particular the demonstration of the essentially non-seborrhœic character of the seborrhœa sicca capitis of Hebra and others, at least in some of its forms. In order to do this I shall first offer some remarks upon the histology of the sebaceous glands with their product. I shall then give the result of examination in those affections which are beyond question seborrhœic in character. Having presented the sebaceous glands in their normal and pathological condition, I shall examine the product of disease in the affection particularly in question, and by a comparison of this with the normal type of seborrhœic disease, and also by referenc to the histological facts stated, shall endeavor to establish my proposition. Finally, I

shall adduce the evidence of other writers who have arrived at the same conclusions with myself, through studying the affection from a somewhat different standpoint.

Histology of the Sebaceous Glands.—The sebaceous glands may be regarded as involutions of the skin, or, in some cases, of the hair sacs. That all the layers of the skin however do not take part in this involution will appear, if we picture to ourselves a normal gland seen in section, as described by the histologists. We observe that the outer portion of the gland is composed of an external coat of connective tissue, continued in the case of free glands from corium, in other cases continued from the hair sac. (Kolliker.) This may be called the gland sac, and its interior, with the exception of a small central cavity, is filled with epithelial cells, directly continuous with those of the stratum malpighii, of which the most external that lie in contact with the gland sac, resemble the deeper cells of the mucous layer, except only that the nucleus is more distinctly visible. Those that are situated more internally first become filled with small fat molecules, and then with larger fat drops that surround and conceal the nucleus and cause the cells to increase in size. The cavity of the sebaceous gland is occupied by an amorphous mass of fatty matter, and the debris of numerous cells. (Biesiadecki.) The stratum corneum does not take any part in the formation of the gland itself. As it dips down into the funnel-shaped opening of the sebaceous sac it appears to become more and more attenuated, and either ends at the neck of the gland proper, or perhaps lines a portion of the neck. This absence of the stratum corneum in the structure of the sebaceous gland would be a matter of indifference in reference to the present subject, if the same views prevailed as formerly regarding the genesis of the horny cells from those of the stratum mucosum. Kolliker says: "The formation of the cutaneous sebaceous matter resembles in many respects that of the cuticle. The young, easily soluble cells at the bottom of the glandular follicles may be compared to the malpighian cells of the epidermis, and the less soluble ones of the secretion filled with fat to the horny plates." But the recent researches of Langerhans

prove that the stratum corneum is absolutely separated from the stratum mucosum by the stratum lucidum of Oehl and Schron, and that the latter alone forms the germinal layer for the horny cells of the cuticle. We cannot therefore regard the cells of the sebaceous secretion as homologous with those of the horny layer, and if in any affection supposed to involve the sebaceous glands, we find under the microscope cells from the stratum corneum, we are driven to suppose, either that these are adventitious accompaniments of the seborrhœal affection, or, if the horny cells are in great excess, that the sebaceous material has been poured out to some extent, in connection with an affection essentially epidermoidal in character.

Pathology of the Sebaceous Glands.—Proceeding now from the histology of the sebaceous gland to its pathology, let us examine the product of secretion in those inflammatory conditions in which this is abnormal in quality or quantity or both. If we express the plug-like mass of comedo from the gland containing it, and cutting off the outer third of its length, examine the remainder under the microscope, we should expect to find all the elements of the sebaceous secretion characteristically displayed. I have done this with the following result: a number of comedo plugs prepared as above were digested for some days in ether, and the solid matter remaining was stained with aniline, and examined under the microscope. The major part of the field was occupied by cells, with some glandular debris. These cells were colored darkly by the aniline, with the exception of a large vacuole in the centre which remained quite light. The surrounding cell contents showed advanced fatty degeneration, being composed of fat granules and globules. No cells resembling those of the horny layer were observed.

In seborrhœa oleosa we should also expect to find the true glandular secretion, only poured out in excess, and with the addition of a certain number of horny cells derived from the general surface, or perhaps from the funnel-shaped apertures of the glands. Having scraped the oily product lightly from the surface of the nose in a well-marked case of seborrhœa oleosa, I placed a portion upon

a glass slide, and after treating it with aniline examined it microscopically. The field as in the case of comedo was largely occupied with deeply stained epithelial cells, their contents showing advanced fatty degeneration. The nucleus which was usually small and light-colored, was occasionally shrunken and surrounded by a bright areola. The cell contents consisted entirely of granules or globules of fat. In some cases the outline was dim or jagged as if the cell was about breaking down into fat globules and debris. There was much granular matter in the field with a few unmistakeable horny cells.

I suppose that seborrhœa oleosa is a precisely analogous affection to comedo, the difference between them being that in the latter, the chemical constitution of the sebum is altered, while in *s. oleosa* this is unchanged, being merely increased in quantity. Here then we have in two undoubtedly seborrhœic affections no cells resembling the horny cells of the epidermis, excepting that in the case of seborrhœa oleosa a few are encountered evidently adventitious in their occurrence.

There is one variety of seborrhœa sicca which is essentially the same disease with those just mentioned. This is found in its most characteristic form on the chest and back in the shape of nummular or annular patches made up of a reddish base, surmounted by yellowish-brown, fatty, pellicle-like scales, occasionally massed together to form a greasy coating. I have examined the product of disease in this variety of seborrhœa with the following result: The disease from which the specimens were taken was composed of patches and rings of yellowish-brown oily scales, of a pearly, greasy lustre, and having a doughy feeling when pressed between the finger and thumb. They contained so much oily material as to leave large stains in the bit of paper on which they were lying. Treated with aniline and water the cells colored pretty well, though they were somewhat difficult to stain, owing to the repulsive action of the commingled oil. Under the microscope the cell contents were found to be decidedly granular. In some cells minute oil globules could be observed; the cell outline was frequently indistinct. Many

cells contained a nucleus which in some cases appeared shrunken, and was contained within a vacuole; in others the place of the nucleus was occupied by a vacuole alone.

Thus far all is plain. The product of the disease is essentially the same in comedo, *seborrhœa oleosa* and *seborrhœa sicca corporis*. I have reason to believe that certain forms of *seborrhœa sicca capitis*, those in which the eruption is similar to that described as dry *seborrhœa* of the body, present the same microscopic appearances. I have not, however, had an opportunity of examining these. It is when we come to examine that variety of *seborrhœa* which is characterized by the formation of fine, dry, powdery, or pearly white scales, constituting a branny disquamation of the scalp, that we find decided differences in the microscopic appearances presented. The following notes of an examination of a case of this kind will show just what these differences are: The scales taken from the scalp of a young girl, who had suffered a long time with severe "dandruff," were macerated for some weeks in ether, and then stained with carmine. Under the microscope the cells were sharp in outline, without distinctly granular contents; no sign of fatty degeneration. Most of the cells contained large distinct nuclei, much lighter in color than the protoplasm.

It is very evident, I think, that we have here a different product from that remarked in the first three observations. There we had the typical product of the sebaceous gland, the granular cell, sometimes complete, again breaking down, and finally broken into granules and globules of oily matter. Here we find nothing of the kind. The cells are those of the horny layer, and although differing in appearance from the epithelial cells of the horny layer thrown off in *eczema squamosum* and *psoriasis*, yet evidently belong to the same stratum. We have in this form of disease, to which the term of *seborrhœa* can, I think, no longer be properly applied, something intermediate, pathologically speaking, between *seborrhœa sicca* and *eczema* and *psoriasis*. For this the term *pityriasis* or *pityriasis simplex* might properly be employed. In times past this term was used to denote a large number of affec-

tions having a desquamation of the epidermis as their chief feature, but being distinct in other respects. In the natural reaction from this confused nomenclature, we have come of late to confine the term to the disease known as pityriasis subra alone. The field, therefore, remains clear for the introduction of the title pityriasis simplex, to denote an affection whose pathology and clinical aspects alike exemplify the idea conveyed by the term.

At the time the examinations were made, which led me to the conclusions above stated, I was unaware that similar views, as to the existence of a true pityriasis, had been reached by others. I have since ascertained that such views have been sustained, in opposition to that of Hebra, by Pincus and Piffard. Pincus, after stating Hebra's views, says, that while admitting the value of the latter's observations, he cannot subscribe to the conclusions drawn from them. Pincus collected the scales from the scalp in a number of cases of ordinary dandruff, dried them, and after weighing them carefully, digested them in ether, weighed the sediment, and examined it microscopically. The result of seven such estimations showed an average loss of three-fifths the entire mass. The remaining two-fifths were epidermis. On two occasions Pincus had an opportunity of observing pityriasis capitis complicated by seborrhœa. The seborrhœa appeared, and ran an acute and severe course, so that the old pityriasis alone remained at the end of fourteen days in one case, and at the end of three and a half weeks in the other case. Having examined the scales in one case every third day, and in the other every second day, during the course of the disease, he found that when the disease was at its height, the proportion of pure epidermis in the scales was one-ninth to one-eleventh of the entire mass. During the latter part of the disease, as it was disappearing, the old proportion of two to five was again observed. Pincus goes on to say, that where the seborrhœic matter poured out is almost fluid, and the skin looks as if covered with oil, the proportion by weight of epidermis must be much smaller. He inclines to the plan of calling by the designation seborrhœa the disease heretofore known by

that name, while the affection just alluded to should be called pityriasis, with the understanding that this designation does not involve a denial of the existence of something more than a mere increased desquamation of epidermis.

Piffard, speaking independently of Pincus, and making no reference to his statements, arrives at a similar conclusion. He says: "Upon microscopic examination, the scales (of pityriasis) will be found to be constituted chiefly of horny cells, with a varying, sometimes very slight, amount of entangled sebum." That there is an affection, which may with propriety be called *seborrhœa sicca*, Piffard admits. For this disease he prefers the name *acne sebacæ*. Piffard gives a picture of the microscopic cells in pityriasis, which resemble precisely those seen and noted by me.

Finally, the facts above stated may be formulated as follows:

1. The sebaceous secretion is derived from fatty metamorphosis of the enchyma cells of the sebaceous glands. These cells are homologous with those of the stratum mucosum of the skin. They have nothing in common with the cells of the horny layer.

2. *Seborrhœa* is a disease of the sebaceous glands, characterized by the pouring out of an increased quantity of sebum, more or less altered in chemical and physical composition. In *comedo* and *seborrhœa sicca*, properly so called, the secretion is condensed to a fatty consistency, while in *seborrhœa oleosa* it remains in an oily state. In each of these affections, however, microscopic examination shows epithelial cells in a state of more or less complete fatty degeneration, and breaking down into granular debris. Horny cells are only found adventitiously.

3. Certain forms of disease, heretofore commonly classed as *seborrhœa sicca*, should properly be removed from the category of diseases of the sebaceous glands, since the pathological product in these cases is not sebum, but epithelium, from the horny layer of the skin. Any sebum which may be present is a mere accompaniment of the epithelial product. For these cases the designation *pityriasis*, or *pityriasis simplex*, would seem appropriate.

FURTHER OBSERVATIONS ON DIPHTHERIA.—Since my previous communication regarding diphtheria, written 4th January last, the disease has continued to prevail, although not so extensively. I have attended a number of cases, some of them severe. The same treatment has been pursued, and with uniform success. I have seen three cases which proved fatal; in two of them I was called in as consulting physician; one died of an affection of the trachea, for whom nothing could have been done; the other died of septicæmic poisoning and hemorrhage. The other case had been ill over a week; nothing had been done for five days. The throat was filled with a foetid, black, putrid mass, with a brown fluid flowing from the mouth and nostrils. Next day hemorrhage set in, which soon ended fatally. Death in this case was evidently caused by the membrane becoming putrid. The soft parts beneath became also affected, ending in fatal hemorrhage.

I have learned a number of facts regarding diphtheria which are very important: First, that the disease is always caused by a specific contagion, spreading from one person to another, either by personal contact or from articles of clothing, in a similar way to scarlatina and other zymotic diseases. That it does not arise from dirty cess-pools, rotten carpets, etc., although I am willing to admit that individuals whose blood is filled with emanations from these substances will be more likely to be affected by the contagion, and have the disease in greater severity. The period of incubation varies from seven to ten days. Certain general symptoms, such as chill, headache, etc., always precede the sore throat. I have seen several cases which have been exposed to diphtheria here, furnish symptoms lasting one or two days without very sore throat, but who seem capable of giving true diphtheria to others.

I saw one man aged 50, who had all the symptoms without any sore throat, and who had been in close attendance upon a grand child who died. A week after his slight illness a son of his had an attack, and a young man aged 16 at the same time had a severe attack, and he had been in the habit of associating with the old man, one

night lying in bed with him, and smoking from the same pipe. Many have diphtheria so slightly that they are not aware that much is the matter with them, and continue their avocations, thus unwittingly spreading the disease. This is more particularly the case with children attending school. During the past six months there have been over 200 cases in this place, and in not one has the disease been known to return, at least so far as the other medical gentleman and myself know, and I have been making particular enquiries. I therefore feel confident, that like scarlatina, etc., the disease is not likely to return to the same person for at least many years.

I will relate what happened in one family, which shows clearly the protection those possess who have recently gone through the disease. In the month of October last, four little children, members of one family, had each diphtheria, a few days intervening between each case. Their mother, a lady of about 40 years of age, attended them at the time, swabbing their throats regularly. They all recovered, their mother remaining unaffected. Three months afterwards they visited a family who had a girl, aged 11, very ill of diphtheria. In about ten days she had a very severe attack, apparently caught from visiting the sick child. The children were in the room with her constantly, having no one else to look after them. It is nearly a month since Mrs. W. recovered, and the children still continue in perfect health, and have shown no symptom of disease. I could relate several cases of nearly a similar character. Many escape the disease, although fully exposed, and they catch it from a very slight exposure. One of our doctors here had been visiting patients all winter and remained well, and once when swabbing a throat the patient coughed, and a piece of membrane flew into his mouth, but he still remained unaffected. Lately he made a friendly visit to a young man, about his own age, and who had a pretty severe attack. A week afterwards he was seized with diphtheria in its usual form.

In my former article I neglected to give what I believe to be the rationale of the treatment. The swabbing material, consisting of No. 2 tinct. of iron, sulphurous acid,

carbolic acid and glycerine, destroys the morbid matter contained in the false membrane, and also prevents its decomposition. Its frequent application is necessary to keep up its antiseptic effect, as it must be washed off by the swallowing of liquids. Next, the internal medicine, consisting of chlorat. potass. tinct. ferri, mur. and glycerine, and water taken between the periods of swabbing, acts as an antiseptic, but being swallowed it is absorbed and kills the morbid matter contained in the blood, and by being continued even after the recovery, prevents the sequelæ which sometimes follow diphtheria. The cold water application I consider of great importance. It keeps down congestion, and prevents the further formation of the membrane, and also favors its separation. When diphtheria breaks out in a family, I make all the other members use sulphurous acid freely, as I believe it has a powerful effect as a preventive, by killing the contagion as it enters the body. I also direct the rooms to be fumigated regularly by burning sulphur on hot cinders. This precaution I constantly recommend, as I believe it tends to prevent the spreading of the disease.—*Canada Medical and Surgical Journal.*

ON THE CAUSES OF INSANITY IN THE UNITED STATES.—Insanity is on the increase in the United States, and has been for many years. It is but reasonable to suppose that the perverted business and industrial relations of the past four years have given it an additional impetus, although little appears in asylum records under this head. There are now some fifty thousand persons in the insane asylums of the United States (that is equal to twice the number of our regular army), and many others treated outside asylums. No man can declare himself absolutely safe from an attack of insanity, whether his family history be clear of it or not. It is no respecter of persons; it attacks high and low, learned and unlearned.

The most accurate statistics gleaned teach "that one person in every sixteen hundred and ninety of the population will become of unsound mind in the course of each and every year." If this ratio be correct, a population of

44,000,000 will annually add 26,035 persons to the list of the insane, not speaking of the numbers that will have accumulated in prior years. This annual yield, at a cost of keeping of \$266.71 per capita (the average cost in thirty-six of our most cheaply conducted asylums), will cost the State—for the State stands in *loco parentis* to the afflicted—\$6,956,398; this sum, added to the cost of sheltering, \$52,070,000, estimated at \$2,000 per capita (\$3,000 is the usual estimate), will impose on the State an annual burden of \$59,026,000, or an average yearly tax (were it so levied) of \$1.34 for every man, woman and child in the United States.

In view of the many-sided importance of this subject, it deserves and demands the studious attention of all men. As physicians, it becomes us to know all that is known of this "sorest of all maladies;" as philanthropists to prevent, and when we cannot prevent, alleviate; as intelligent citizens and tax-payers that we may know how to expend to the best advantage the millions that are annually expended for the maintenance of this numerous corps of the invalid army of the republic. What, then, constitutes insanity, and what are the chief causes that produce it? Waiving technicalities, that man or woman is insane, in the eye of the law, whose mental operations are so impaired by disease that the individual is no longer able to take care of himself (or herself) and of his (or her) estate. It simply means of unsound mind—of diseased brain. It has nothing to do with the supernatural—with spirits, demons, or even with Wilkie Collins' monsters; and the sooner this idea, which still hovers round as a relic of ages of ignorance and barbarism, is abolished, the better it will be for the afflicted ones. There is no sense in the peculiar odium which is associated with the insane state in the minds of many; it is a compound of ignorance, pride and ungodliness.

The principal forms of insanity are the hereditary and non-hereditary. To have hereditary insanity means that one's parents or more remote ancestor's were insane, or suffered from other nervous disease, which morbid taint appears in the offspring in the form of pure insanity;

for all nervous diseases are interchangeable—that is to say, any nervous affection may in a subsequent generation appear as that same nervous affection, as some other nervous disease, or as insanity, unsound mind. Non-hereditary insanity is that which appears in an individual whose family history is free from insanity and other well-marked nervous diseases.

The greatest factor in the production of both forms of insanity, hereditary and non-hereditary, is over-indulgence in alcoholic liquors. It has recently been claimed that liquor, directly or indirectly, in one generation or another, is the cause of all insanity, but this is absurd. Disease attacks the brain as well as other bodily organs, from common causes incident to human life, and to the delicate mechanism of our cerebral machinery. It is a safe and moderate estimate to say that it causes one-half of all the madness that exists; it, therefore, muddles more than 13,000 brains, and damns more than 13,000 souls per annum, in this country alone. Is it not the duty of the State to protect its citizens? It should prohibit, by stringent laws, severely executed, the sale of those poisons sold as alcoholic beverages, and it should and ought to regulate the sale, even of pure liquors, both of which blast and pauperize so many people, and so largely increase the taxation.

Having thus mentioned what is generally admitted to be the greatest factor in the causation of insanity, it is not an easy matter to enumerate all the causes that produce it, in the order of frequency, for the reason that some cases are due to more than one cause. Paresis, which contributes some fifteen per cent. of the inmates of our private asylums (twenty per cent. to the English private asylums) is a disease of *wine and women*. Perhaps, however, it is safe to say, indeed my little experience warrants me in saying, that sexual excess is by far the more efficient element of this compound cause in the production of paresis. Sexual excess has been proven in every case of paresis I have ever seen, and at the present writing I have quite a number in my care. Paresis may result, in rare instances, from over-taxation of the mind in the di-

rection of legitimate business. Sexual excess, with and without strong drink, produces unsoundness of mind in other forms than paresis, and thus swells the proportion of insanity caused by it much higher than that given for paresis. All estimates are but approximates. Self-abuse produces some ten per cent. The "wastes and burdens of life," losses, sorrows, griefs, disappointments, over-tension of the mind in the pursuit of good and laudable objects, especially over-draughts on the imagination, lead to mental aberration.—*Medical and Surgical Reporter*.

SALICYLIC ACID IN LUMBAGO.—As this comparatively late addition to *materia medica* has been so much vaunted in the treatment of acute rheumatism, I think it will not be out of place to give my experience, though short, in its use in lumbago.

Notwithstanding lumbago is one form of chronic rheumatism, I have never seen salicylic acid recommended especially as its cure; but having been called during the month of July, 1877, and not knowing any specific, I determined to administer this acid and give it a fair trial. I shall describe the case below.

Since salicylic acid has been discussed so in its relation to acute rheumatism, I shall not stop to add my mite of experience in that direction, except that I have come to regard it as nearly a specific in that disease.

CASE I.—Mr. D. D., aged forty-two, subject to lumbago for the last seven years, attacks occurring from five to eight times a year. I found him motionless, in bed; pain so intense on the slightest movement that he could not even flex his toes without excruciating pain. I gave him a No. 1 capsule (about ten or twelve grains), charged with salicylic acid, every two hours. After ten hours he could turn himself in bed; after twenty-four hours he got out of bed and walked to the dining-table in the next room; and after forty-eight hours he was out attending to his farm duties, with no pain when he walked carefully. When ten doses had been taken I ordered the capsule only four times a day, and advised him to rest a week and take nourishing diet. He told me his previous attacks had always lasted

from one to three weeks; and said he: "This is the most severe attack I have ever had but one, and that lasted me three weeks instead of three days." He has had symptoms of attacks twice since; but he began at once on his capsules, and the symptoms passed away. He has gone longer this time free from lumbago than ever before during seven years.

CASE II.—Mrs. M. H., aged thirty-two. Found her helpless, in bed, with no pain especially, except when she attempted to rise; could not walk without support on account of the severe pain in the lumbar region. I left her twelve capsules, same as in Case I, to be taken every three hours; sent her eight more capsules the next day; and had the satisfaction of learning from her husband, on the fourth day, that she was doing her household duties.

CASE III.—Miss M. M., aged twenty; her second attack of lumbago. Complained of constant pain in the lumbar region; could only rest when the muscles of her back were on the stretch. Gave her ten capsules, to be taken every three hours; sent her ten more the next day; and met her riding to town, on horseback, on the fifth day after her first attack.

CASE IV.—Mr. W. A., aged thirty-seven, first attack, came to my office and said he had been suffering for four days with severe pains in the muscles of his back, and also complained of pains and cramps in the flexor muscles of his thighs, and even lower down, especially the gastrocnemium. I gave him salicylic acid, always in capsules, about forty grains a day, for four days. Upon the sixth day he reported himself as having improved from the time he began his capsules.

In Case III there was a recurrence of the attack two months afterward. She sent immediately after feeling the first symptoms. I sent her six doses, to be taken every two hours. When I heard from her again she was well. I have never had unpleasant stomach symptoms from such large doses but once, and then by ceasing the acid a short time the symptoms disappeared. Never having read of lumbago succumbing so readily to treatment, I trust that the report of these cases may not be without interest to your readers.—*Louisville Medical News.*

ON THE USE OF ELECTRICITY IN THE TREATMENT OF EPILEPSY.—That electricity is of some value in the treatment of epilepsy, I have for a long time believed, and while my observations in this direction do not enable me to assert the exact measure of benefit that we may hope to derive from its use, either alone or in conjunction with approved methods of treatment, they may, perhaps, throw some light on the subject, or, at least, awaken an interest that may lead to a more extended experience as well as to a greater accuracy of observation. I wish to say, first, that in many instances where patients have been submitted to central galvanization—galvanization of the sympathetic, or to general faradization—a profound tendency to drowsiness has been observed.

In some cases sound sleep has for a few moments been induced, with the subject in an upright position while receiving the current through the brain. I recall one patient under treatment by central galvanization who was repeatedly put to sleep within a minute after the beginning of the application.

Accepting the theory that a state of cerebral anæmia predisposes to sleep, it is not very difficult to believe that the feeling of drowsiness that so often follows central galvanization, and even general faradization when specially directed to the cervical ganglion, is due to the direct action of the current on the vasomotor nerves.

It seems hardly necessary at this date to attempt a detailed argument in proof of the very decided action of electricity in any of its manifestations on the arterial circulation.

Among later experiments are those of O. Tschetshott (Abstr. in St. Petersb. med. Wochenschr., Oct., 1876), and Przewaski (Deutsche med. Wochenschrift, No. 43) who have investigated the action of galvanization of the sympathetic. The latter found that a lowering of the temperature of one side of the face occurs upon faradization of the corresponding ganglia, the decline of temperature ranging from 0.5° to 1.75° Cent., according to the length of the application. In the same way he found that faradization of the ulnar nerve is followed by a decrease from 0.7° to 2.53°

Cent. in temperature in the region between the third and fourth fingers supplied by this nerve. Tschetchott's results are similar.

I have at this time under treatment a patient who has been under the care of both the late Dr. Peaslee and Dr. Janvrin, and who illustrates, better than any case I ever saw, this control that electricity has over the circulation. For several years this patient has been a great invalid from uterine congestion and displacement, and although now much better of her local troubles, suffers night and day from excessive action of the heart. This activity is altogether functional in character, and in a measure probably dependent on reflex influences, for increase of local pain invariably accelerates the pulse.

It (the pulse) is usually anywhere from 95 to 120, but it frequently rises as high as 160. When at the latter point, an application of general faradization invariably reduces the pulse from 40 to 50, and sometimes 60 beats. When no higher than 125 to the minute, a similar application reduces the number some 30, and when the pulse is beating with its usual frequency, say 95 to a minute, the treatment brings it down some 5 to 10 beats. I have tested this case thoroughly and carefully, and find that no local applications of either the galvanic or faradic currents will give as satisfactory results as general faradization. It is needless to say that the relief following such application is considerable, and the tendency to this unusual excitation seems to be growing less and less.

A case that suggested a certain similarity between the action of bromide of potassium and electricity occurred in the person of a lad, mentioned on page 558 in the second edition of our work on "Medical and Surgical Electricity." The case was one of petit mal, and for two years the attacks occurred from six to ten times a day. In ten-grain doses, the bromide of potassium reduced the paroxysms to two or three in the twenty-four hours. This improvement continued for a month, when, notwithstanding the increased doses of the bromide, the attack gradually increased in frequency. General faradization with galvanization of the sympathetic were then resorted to, and the

results that followed were substantially the same as those obtained from the bromide. The epileptic seizures were reduced to from one to three a day, but after a few weeks they returned with their usual frequency. Subsequently, in two other cases of petit mal that came under my notice, the same similarity in the action of the bromide and electricity was noted. Recovery followed in one of these cases. The patient, a girl aged eleven, first observed the attacks in the early part of 1874, and came under my observation in March, 1875. At first the paroxysms occurred but once or twice a week, but in about six months they began to increase in frequency, and for several months before I saw her she was having them as often as once and sometimes three times a day. The attacks were of short duration, lasting not more than one-half to a minute and a half, and although for a time there was perfect unconsciousness, yet the patient, if standing, as was usually the case, never fell, but if engaged in any occupation, immediately resumed it after the attack had passed away. I used at first the bromide of potassium alone, and pushed it until the face was covered with acne. As in other similar cases, she improved very decidedly through several weeks, and then rather quickly relapsed. It is proper to state, however, that this relapse may have been due to a neglect, to which she confessed, of regularity in taking the medicine. I then subjected her to central galvanization and general faradization, alternating the methods and allowing a day to intervene between each application. She improved much less rapidly than under the bromide, but the improvement that followed was retained. At the end of three months she was having but one attack in a period varying from ten days to two weeks, and in just eighteen weeks from the beginning of treatment she had her last attack.

Miss W., aged thirty, came to me November 4, 1875, with the following history: In the early part of 1872 she had her first attack in the night, while asleep, but for a year previous had occasions of being in a dazed condition, with great confusion of memory.

It is as well to state that there had been all along in her case a strong hysterical element that is frequently aggravated by surrounding influences.

The attacks occurred for a while once in about seven weeks, and further on, instead of a single paroxysm, she would have two and sometimes three in the succeeding twenty-four hours. Later still, the attacks became as frequent as once a month, with one or two longer intervals. I learned that Dr. George J. Fisher, of Sing Sing, had formerly been her physician, and, in answer to a letter of inquiry, he informed me that the patient had been under his care for a long time.

He had given her the bromides of potassium and soda (of each ten grains) three times a day. This she had taken for several years, and was still taking when she came under my care. During the month previous she had three attacks, and was feeling certain premonitions, which she described, when I submitted her to the additional treatment of the electricity. I did not feel justified in discontinuing medicine, but in order to give her every chance, substituted for it the following formula of Brown-Sequard:

R.—Potassæ bicarbonatis,	. . . . .	3ij.
Ammonii bromidi,	. . . . .	5vij.
Potass. iodidi,	. . . . .	3iij.
“ bromidi,	. . . . .	3iij.
Infus. calumbæ (British),	. . . . .	Oj.

M.

S.—Teaspoonful at each meal, and three teaspoonfuls at bedtime.

The patient was exceedingly nervous and despondent, and it was evident that if in no other way electricity might prove of service, as an adjunct to allay irritability and as a general tonic.

I treated her every other day for three months, alternating central galvanization with general faradization. I then gave her an interval of rest for three months, during which time she had an attack occurring a little more than six months from the last. After a second three months' treatment I allowed another interval of rest, and again treated her for three months. She has not had a second attack, and as eighteen months have passed during which she has had but one seizure, we are hopeful of ultimate

results. It is worthy of note that, since the two methods of treatment have been combined, the bromic acne has very considerably lessened, and at times is hardly perceptible.

The last and seemingly the most satisfactory case in its results that I have to relate is as follows: P. M., a peddler, aged thirty-two, entered my office for the purpose of disposing of his wares, March 14, 1877. The man was of respectable appearance and average intelligence, and while conversing with him he had a slight epileptic seizure, and would have fallen from his chair if I had not supported him. When consciousness returned, after what seemed to be a very short period—perhaps not longer than one or two minutes—he seemed to recognize the fact that the attack had been of short duration, and on inquiry gave the following history: He was a native of England, had been in this country two years, and had had the first epileptic attack eighteen months previously. As near as he could remember, the second attack occurred after an interval of six weeks—the third in four weeks; thereafter they gradually increased in frequency, and during the last six months had occurred as often as twice a week. Most of the attacks were light and soon over, as the one that I witnessed, but at least once a month, as he informed me, they were much more severe—the aura being recognizable—with slight lacerations of the tongue.

He had been under no professional care, but had taken a good deal of "salty-tasting medicine," administered to him by some druggists. He recognized the name of bromide of potassium and said he thought that was the medicine.

Upon proposing that he submit himself to my treatment (gratuitously of course) he readily consented, and thinking it to be good and fair opportunity I placed him under central galvanization, with occasional seances of general faradization.

I treated him every day excepting Sundays (when I was out of town) for six weeks. March 16th he had one of his severe attacks. March 22d, one of the lighter seizures. March 31st, another slight attack. April 14th, a

third attack of a mild character. On April 20th a paroxysm of the more severe type took place, but evidently considerably modified in intensity and duration.

This was the last severe attack that he had. On May 4th he said that during the morning he thought he had experienced a very slight paroxysm, but it was so transient that he was hardly aware of it. I saw no more of him until the following September, when I accidentally met him on the street. He looked well, said that he had had no more attacks, expressed gratitude for the service rendered, and promised to call at my office, but up to this time he has failed to do so.

In considering these few not altogether unsatisfactory results, a question arises which, in its relation to electricity, has a special significance.

Why do not our therapeutics yield more uniform results? Experience very clearly shows that there is hardly a remedy to the effects of which there is such a varying degree of susceptibility and response as to electricity. To use a strong expression, there are some persons, although perhaps but a small proportion, who were not born to be thus treated. If, while in health, it is given to them, the impression is decidedly unpleasant, or if administered for the relief of pain or nervous irritability, or a general tonic, it fails in its effects, if it does not aggravate the symptoms. On the other hand, there are those upon whom it leaves a delightful impression, and with whom it seems always to agree, and while much does, indeed, depend on the knowledge and adroitness with which the applications are given, this difficulty of foretelling the results that may be expected from the use of the current in given cases is largely the result of inherent differences of susceptibility.

Dr. Meredith Clymer, in some most excellent remarks on the treatment of epilepsy, states that he has never heard of a permanent cure of the disease under the use of the bromides, either alone or in combination.

While we may regard this as an extreme statement, the suggestion, that the best results will follow only when we call to our aid every measure that will tend to increase and develop vital power generally, commends itself to all. It

is not alone, therefore, on the theory of a special influence on the nerve-centres, or over the cerebral circulation, that we employ electricity as an adjuvant to the bromides, but also because of its undoubted and powerful constitutional tonic effects. In this, therefore, as in various other forms of central disease, I almost always with central galvanization associate and alternate general faradization. In regard to the frequency of the application I should say, excepting in special cases, the seances, with alterations of the currents, might with advantage be repeated every day. Concerning the length of the applications there is much that might be said, that I can hardly undertake to say here. The universal tendency is to unduly prolong the treatment until secondary exhaustion follows, and more harm results than good. Dr. Lincoln, of Boston, has written an article on this theme which I would commend, at the same time suggesting that we bear in mind the aphorism, "Much too little than a little too much."

I seldom continue the applications of the galvanic current to the brain and sympathetic longer than three minutes, and, as a rule, in from five to ten minutes you accomplish as much by general faradization as is possible. Here as elsewhere, however, individual idiosyncrasies must be studied, and in the details of treatment much is left for the exercise of judgment and experience. In applying galvanic current to the central nerves, I place one electrode—the negative—over the solar plexus and the positive on the top of the head. The sponge which is over the cranial centre, and on which is pressed a large flat metal electrode, should be very large, covering nearly the whole surface of the head.

Small sponges should not be used. They cause too great concentration of current; pain follows, and far less is accomplished. Having the sponges at either pole, large, soft, and applied with firm pressure, and gradually and without interruptions increasing, and in the same way decreasing the current, it is surprising what tension can be borne without the slightest sense of discomfort or unpleasant after-effects.—*New York Medical Record.*

DUALITY OF THE BRAIN.—As you are all familiar with the anatomy of the brain, I will occupy no more of your time with the anatomical construction than will be necessary to illustrate my position.

1st. The brain is a duality.

2nd. Each one of the pair is separate, distinct and complete in itself. Each one of the pair performs all its functions independent of its fellow. The functions of the brain are: the perception of an impression, volition, memory, and the power of originating motion. Therefore, each one of the pair has a faculty of the perception of an impression, volition, memory, and the power of originating motion.

Reasoning from analogy: Physiologists for the sake of convenience usually divide the body into a number of systems, each system consisting of a number of organs subservient to the same purpose in the economy. These organs are always found in pairs, except the outlets and reservoirs, the functions of which are passive, as they perform no active duty; for instance, we have two arms, each one of the pair complete in itself, capable of performing the same offices alone and unassisted by its fellow. Each arm has the same number of bones, muscles, etc., arranged in the same manner; so also of the lower extremities; so also of the organs of our senses, hearing, seeing, etc. The nerves are given off in pairs—the branches. Now, when all the organs of the body of which we have positive knowledge are found in pairs, is it not reasonable to suppose that the brain also consists of a pair as separate, distinct and independent as the arms?

Reasoning from cause to effect, and *vice versa* from effect back to cause: One of the pair of brains can and does recall impressions its fellow never had any perception of. We can and do call into activity one of the pair whilst its fellow is dormant. Each one of the pair may and does receive distinct impressions at the same time. A writing master can trace with a pen on paper a letter of the alphabet that will extend exactly to a certain line above and a given line below; he can then make an exact copy of it, or a dozen if he wishes, so much alike you cannot detect any

difference. To accomplish this he must judge of the exact distance to move his hand, the exact directions to move his hand, and the exact position to hold the pen. The power of originating motion is a faculty of the brain, not the hand nor arm. His hand, therefore, moves as directed by the brain—the result of education. Let a man who has never learned to write undertake in like manner to make a dozen copies of the same letter. His arms may be as strong, his nerves as steady, his brain as active as the writing master. He may have all the physical qualifications, yet he cannot make two letters exactly alike; it must be learned. Now let the same writing master take the pen in his left hand and undertake a copy of the letters he has traced with his right hand, and he can no more do it than the man who has never learned to write. Why? The nerves that supply the right arm are given off from one of the pair of brains, the nerves distributed to the left arm from the other one of the pair. One of the pair of brains has been educated to move the hand the required distance and direction, whereas the other one of the pair has not been so educated.

If a man has only one brain, one memory, one source of originating motion, the distance and direction learned, the brain could and would direct the motion of either hand indiscriminately to move the required distance and direction. The writing master has educated but one of the pair of brains—the one correlated to the right arm; consequently to write with the left hand he must also educate the one of the pair correlated with the left arm's hand, and this is true of all the organs of the body. Dancing masters frequently find their pupils learn to execute all the movements they require with one foot readily, and almost impossible to learn and execute the proper movements with the other foot of the pair. Now, if the brain is a unity; if the pupil has but one memory, one source of originating motion, one volition, the time, distance and direction once learned, the feet, moving only as directed by the brain, would of course be equal, the same time, distance and direction being required.

Again, we have a pair of organs communicating sound

to the brain—one communicating directly with the right the other with the left brain. The time as well as the volume or force with which it reaches the brain must vary according to the direction from which the sound proceeds, and the position of the organs of hearing. If the brain is a unity this would destroy the harmony. Either one of the pair of brains has prehension of the sound and the other has not, or each pair receives the sound independent of its fellow. So also of sight, the rays of light from one object impinge on both eyes, two images are conveyed to the brain. If the brain is a unity we would, of course, see every object double.

Again, each one of the pair of brains can be active at the same time. A school teacher can add up a column of figures correctly and listen at the same time to a scholar recite a lesson. A man can write a letter on one subject, and at the same time listen to a conversation on a different subject. A man could as easily move one foot or one hand in different directions at the same time as one brain could act in different directions at the same time—reasoning from analogy.

The power of originating motion is a faculty of the brain, and when the brain is injured the motion of a part is interfered with. If but one of the pair of brains is injured the paralysis is always on the side correlated to the brain injured. If the brain is a unity it would be impossible to paralyze one arm without, at the same time, paralyzing both. Unilateral sweating from one of the pair being diseased could not result if the brain is not a duality.

Reasoning from the anatomical construction of the brain: The normal brains of two individuals differ in size, number and arrangement of convolutions, depth of anfractuositities as well as intellectual power and disposition. So also do the pair of brains differ in the same individual; the size, convolutions, etc., of the right differs from the left. By keeping in mind that the brain is a duality, and the pair differ in their formation in the same individual, we can easily understand the many apparent contradictions we find in the manner, disposition, etc., of the same individual.

Recapitulation.—1st. The brain is a duality because all the organs of the body of which we have positive knowledge are found in pairs, except the outlets and reservoirs.

2nd. One of the pair of brains may have the perception of an impression when its fellow has not.

3rd. One of the pair may be educated and the other not.

4th. Each one of the pair may have the perception of different impressions at the same time.

5th. When only one of the pair is injured so as to destroy the power of originating motion, the paralysis is only on one side of the body.

6th. The shape, size, convolutions, anfractuositics, etc., of one side differs from its fellows.

7th. We can in no other way account for the contradictions in men's characters, and the peculiarities of many diseases.—*Cincinnati Lancet and Observer.*

INTRA-UTERINE PREGNANCY, COMPLICATED WITH EXTRA-UTERINE FETATION—RECOVERY.—Mrs. M., a large, rather tall, and an exceedingly robust woman, aged twenty-seven years, married four years, primipara, menstruated at sixteen, and enjoyed excellent and uninterrupted health; date of last menstruation sometime in November preceding my first visit; was seen by me March 26, 1876. I found her suffering most excruciating pain in the right iliac region. She had had pain in this locality during the past month at intervals, though not very severe and usually controlled by domestic remedies; she supposed herself to be pregnant. Inspection revealed a tumor rather low down in the right iliac region, as large as a fetal head, firm and solid, and encroaching somewhat upon the median line. The surface of the abdomen beyond the tumor presented nothing unusual.

A digital examination revealed the os soft and patulous, with but little development. There also existed right latero flexion to a moderate extent, with the uterus somewhat enlarged and adherent to the tumor. The uterine sound was not resorted to as a means of diagnosis. There were also present in the mammary glands changes indicating pregnancy, with morning sickness, etc.

On the 28th of March, two days after my first visit, there appeared a slight sanguineous discharge lasting for one day. The pain was controlled by opiates, and gradually disappeared after seven or eight days. The tumor continued to enlarge for about one month after my first visit, and then ceased to grow, and did not again take on development. At this time the tumor had attained the dimensions of a large fetal head. The case was seen and examined by several medical gentlemen, among whom contradictory opinions were entertained as to the nature of the tumor.

After a careful review of the history and symptoms above referred to, it appeared to me that I had one of two things to deal with, viz: either an ovarian tumor or extra-uterine pregnancy. The latter seemed to have the more evidence in its favor, and I adopted this diagnosis. After the cessation of the pain her condition was comparatively comfortable, but the uterus continued to enlarge after my first visit.

During the latter part of April, fetal movements were felt in the uterus, the outlines of which were well defined, and occupied a central position. This had no effect on the tumor other than to slightly obscure the outlines along its uterine border. Intra-uterine pregnancy was now a fixed fact, but the original tumor remained a matter of doubt. However, I was now inclined to change my diagnosis from extra-uterine pregnancy to intra-uterine pregnancy, complicated with ovarian tumor. I then anxiously awaited the period of the patient's accouchment.

On the morning of August 5th, I was summoned to attend the patient, and found her in the first stage of labor, the os dilated but little, and dilating slowly, with breech presentation, the uterine contractions being rather feeble. I now availed myself of the opportunity to inspect the abdomen during the contractions of the uterus, and the following is what occurred: Beginning with each contraction, there appeared a deep sulcus, or groove, along the line of contact of the uterine and iliac tumors, sufficient to receive a body as large as the index finger, the sulcus disappearing on the cessation of the contraction.

At four o'clock P.M. the dilatation was complete, membranes ruptured, and a moderate amount of liquor amnii discharged. The second stage of labor was protracted, owing partly to my inability to deliver the head promptly. At seven P.M. the patient was delivered of a dead female child, weighing about seven pounds, and well developed.

I had anticipated *post partum* hemorrhage. A short time before the second stage of labor was completed I administered ergot, and subsequently employed Crede's method for the separation and expulsion of the placenta; but in that I was disappointed. A rather free hemorrhage admonished me to remove the placenta immediately, which I did.

The uterine contractions during the third stage of labor were feeble, and on introducing my hand within the uterus, I discovered that the placenta was attached to the right lateral wall and fundus of the uterus, exactly at that point of the uterus in contact with the tumor. The placenta was with some difficulty detached and removed, after which considerable hemorrhage occurred from the want of sufficient uterine contractions. Hemorrhage continued to occur at intervals for the next two weeks, and was with difficulty controlled, though not alarming as to quantity at any time after the first twenty-four hours. Nevertheless, by its continuance, it rendered the patient's condition very critical, producing an extreme degree of anæmia and debility. The tumor remained much the same after the uterus was emptied, with the exception that it became more prominent and its outlines better defined.

Two weeks after labor, septicæmia set in, which defied all treatment, notwithstanding the most energetic measures were resorted to, both local and constitutional. After four weeks' treatment, with no improvement, and the patient's condition becoming daily more hopeless, with dissolution likely to occur at any hour, she became disgusted with treatment, disheartened with no prospects of recovery, she became reconciled to her fate, and refused to continue further treatment.

In this condition she remained some three weeks, gradually sinking lower and lower. The odor about her bed

and person, which had hitherto been controlled during treatment by disinfectant solutions, now became so offensive that her friends could scarcely remain near her.

About the 15th of October, something was discovered protruding from the vulva. A physician was called in, one previously in consultation in the case, who removed a part of what proved to be the remains of a fetus, supposed to be near the fifth month of gestation, and in an advanced stage of decomposition; nevertheless, the placenta and cord were plainly discernible. It was also discovered that this product gained egress through the os uteri. Portions of this product continued to be discharged from time to time, together with pus and debris. The tumor undergoing marked diminution from the first escape of the putrid mass, and the general health and condition of the patient improving in a corresponding degree, the successful effort of nature to get rid of the offending mass, coupled with judicious treatment, enabled the patient to take a new lease on life, and four months from this time she was in the enjoyment of vigorous and robust health, with not a vestige of her former trouble remaining.

DOUBLE FETATION.—On the evening of May 23, 1869, I was requested to visit Mrs. N., aged nineteen years, a primipara. I was informed by her mother that "they supposed Mrs. N. to be pregnant since the latter part of January; that she commenced wasting in the morning, and was now flooding fearfully." I found the patient propped up in bed, and well nigh exsanguine. I immediately removed the pillows from under her head and shoulders, and ordered the foot of the bed raised some ten or twelve inches. This done I made a digital examination, and found the mouth of the womb dilated to the size of a silver half dollar, and readily detected a central placental presentation. Her condition was such that I deemed it advisable to use the tampon, which was thoroughly applied, entirely arresting further drainage. This accomplished I took a seat to await results, remaining by her bedside until the next morning; and as there was neither hemorrhage nor pain, I enjoined perfect quiet, and left with instructions to be

summoned if necessary. I did not see her again until six o'clock in the evening, when I found her in active labor pains, and soon tampon, placenta and fetus were expelled. I also removed from the vagina a well compressed coagulum, the size of a hen's egg, being the entire amount of hemorrhage occurring since the application of the tampon. From this on, my patient made a rapid recovery, and the case faded from my mind as one of placenta prævia with fortunate termination.

On the thirtieth day of October following, I was again summoned to visit Mrs. N. This time I found her in active labor, and within two hours from the time of my arrival she was delivered of a live female child, weighing nine pounds and eight ounces. The child is now a bright little school-girl of nine summers, her birth taking place just five months and six days after the unfortunate expulsion of her twin sister.

Placenta prævia, with excessive flooding, use of tampon, expulsion of the dead and retention of the living twin to full term, are points of professional interest.—*American Practitioner*.

INTERSTITIAL INJECTION OF CARBOLIC ACID IN PILES.—Injection of piles is now becoming a very popular method of treating this painful and troublesome affection. From personal observation I am satisfied that the method deserves all its popularity, for it is comparatively easy to practice by the use of an ordinary hypodermic syringe, gives but little pain, and is far superior to any other method hitherto adopted. Such is the testimony of many eminent surgeons and a large number of respectable practitioners who have given it a fair trial.

The acid is not used full strength, though it might be with good results, but is diluted one-third to one-half or more with water or glycerine, or the two combined. My own method has been to mix equal parts of the strong acid in solution, water and glycerine, to which I add a small quantity of tannin and morphia. The amount of this to be used varies from three to fifteen drops, according to the size of the tumor to be operated upon. About

the only preparation usually necessary to be made (or care to observe) is to evacuate the bowels well just before the operation, and to remain quiet, and avoid solid aliments for a few days afterwards.

A single injection is most usually sufficient to effect the removal of an ordinary-sized tumor, but where the tumor is very large or lobulated, it may require two or more injections; and where several separate tumors exist, they will each require an injection.

I have always been highly gratified by the rapidity of the favorable results following this plan of treatment, and although it may not be absolutely safe in all cases, I have not yet seen or heard of it producing any serious effects, and I always resort to it with the strongest confidence of a favorable result. Who discovered the method, or rather brought it to the notice of the profession, I do not know, but I have seen notices of it in several journals not long since. It appears to have been practiced for some time by a class of quacks, before it obtained much favor with the regular profession, thus illustrating the fact that the profession is not always first to adopt a good thing, notwithstanding their untiring researches and efforts to relieve and palliate the ills of the human race.

In pile tumors of moderate size and purely external, I do not think that the interstitial injection of carbolic acid has any advantages over the bistoury, for in such cases a simple incision is altogether satisfactory.

A SUBSTITUTE FOR COD-LIVER OIL IN SKIN DISEASES.—It is well known that the "cake" which remains after the expression of linseed oil, is largely used by farmers and horse fanciers to fatten their cattle and horses, and to improve the appearance of their coats. This cake contains the principal nutrient albuminoid elements of the ground flaxseed, together with a varying proportion of the oil.

Having had of late a number of cases of cutaneous disease, in which marasmus from defective assimilation of the hydrocarbons was a prominent feature, and in which cod-liver oil was not well borne, it occurred to the writer that the oil of the flaxseed might prove an efficient substitute.

In its ordinary commercial condition, linseed oil is not a very palatable article of diet, but as met with in its natural combination in the fresh seed, is by no means unpleasant to the taste. Believing that the same effects might be expected in the human subject as are known to follow the use of linseed in the lower animals, I have made it a portion of the diet of a number of patients who were unable to take cod-liver oil in the ordinary manner.

The better qualities of flaxseed contain about thirty per cent. of oil, so that by the use of the unpressed seed, a very considerable quantity of oleaginous matter can be incorporated in the daily diet. The seed may be used in several ways: First, the freshly ground seed may be taken in the mouth and thoroughly masticated before swallowing; second, it may be given suspended in milk; and third, the unbroken seed itself may be used. This last method is the one that I prefer. To carry this out, I commonly direct the patient to carry in his pocket or other receptacle a quantity of the seed, and from time to time to take a little of it in his mouth, and to chew it thoroughly before swallowing, in order to insure complete insalivation. In this way some patients will consume several ounces a day, the amount, of course, varying greatly in different cases.

Thus far this use of the seed has not been attended with any disagreeable accompaniments. The stools are rendered easy and natural, without any tendency to diarrhoea, or any other unpleasant complications.

The cases of pemphigus foliaceus, pityriasis rubra, lichen planus, and lichen ruber, which were some time since exhibited at the Society, have been taking the seed in the manner indicated with very decided benefit. It will be remembered that they were all in a more or less marasmic condition when first shown. During the use of the seed, however, they have greatly improved in general nutrition and in the condition of the skin.

The ordinary seed of the drug-stores is not the best that can be obtained for this purpose. A much better article being that known as Calcutta seed. Care should be

taken that it is free from admixture with other seeds, chaff, dirt, etc.

As a substitute, in many cases, for cod-liver oil, we believe that it will be found, on further trial, to fully justify our earlier expectations concerning it.

In view of the fact that there is so much sophisticated cod-liver oil in the market, and that an inferior quality can be readily disguised under the form of an "emulsion," a substitute that cannot be readily adulterated would seem to merit the consideration of the profession, and more especially that of dermatologists, in view of what I must consider its specific determination.—*N. Y. Medical Record.*

Editorial.

MEDICAL ASSOCIATION OF GEORGIA.—The annual meeting of this Association convened in the Senate Chamber, on Wednesday 17th, and opened with prayer by Rev. J. H. Martin. The address of welcome was delivered by Dr. J. M. Johnson, and responded to by Dr. W. M. Charters, of Savannah.

Dr. Battey, the retiring President, introduced the President-elect, Dr. Wm. O'Daniel, who proceeded to pronounce his inaugural address, touching on various topics, particularly that of rudimentary preparation of medical students and the State Board of Health.

Report of Committee on Annual Assessment of members, which was adopted, required the payment of two dollars by each member in attendance and one dollar from those not present, and that those in arrears shall be discharged from such liability by payment to the treasurer of the said sum of two dollars.

Dr. Love, from the Committee on State Board of Health, reported that circumstances made it prudent to defer application to the last Constitutional Convention.

New members were admitted to the number of about

twenty-five, and the whole number in attendance was more than one hundred. The meeting was larger than usual, and had before them more papers on various medical subjects than were ever before presented to the Association at one session. The three days occupied did not afford time to have them all read, to say nothing of the discussion that should necessarily follow the reading. The publication of the Transactions, which is expected to contain these, will certainly be much larger than usual, and will be found to contain interesting and valuable reports.

It was observed that a large proportion of the papers were voluntary communications, the Sections responding poorly, and in some Districts no report at all was received from any of the three sections.

Third District—For the Section on Practice, Dr. Hawkins reported two cases.

Fourth District—For the Section on Practice, Dr. G. J. Grimes read a paper on Tubercular Meningitis. For the Section on Gynecology, Dr. A. W. Griggs reported four cases dyspareunia; one case antifixion of the uterus, of five years standing, treated successfully by electricity; one case lateral flexion; two cases ovaritis; two cases lacerated perineum; one case occlusion of the vulva; one case occlusion of the vagina; two cases placenta prævia; one case eclampsia; four cases canceroid; one case hæmatocile; one case of rupture of the uterus where the child was delivered without the aid of forceps.

Fifth District—For the Section on Gynecology, Dr. W. A. Love reported a case of menstrual derangement resulting from displacement and mechanical obstruction.

Sixth District—For the Section on Surgery Dr. I. L. Harris reported a case of fistula in ano; caused by a chicken bone.

Eighth District—For the Section on Surgery, Dr. A. Mathis reported a case of abdominal dropsy, tapped ninety times, and large quantities of water discharged at each tapping.

Voluntary Papers.—Dr. W. A. Love, on the diagnostic value of the tongue and soft palate; Dr. J. C. LeHardy, on yellow fever; Dr. J. B. Baird, on pathology and ther-

putics of neuralgia; Dr. Henry Gaither, on puerperal eclampsia; Dr. A. W. Calhoun, one hundred and five operations for strabismus; Dr. W. F. Westmoreland, on congenital phimosis as the cause of nervous disorders; Dr. C. B. Leitner, on application of tar bandages; Dr. Ch. Rauschenberg, on blood letting; Dr. S. H. Stout, on non-syphilitic psoriasis; Dr. T. S. Powell, the true physician; Dr. V. H. Taliaferro, on diseases of the uterus and how to prevent pregnancy; Dr. W. A. Love, on saccharated medicines; Dr. W. T. Goldsmith, on cornstalk pith for uterine tents; Dr. A. W. Griggs reported two cases of tubercular meningitis in support of Dr. Grimes' paper on that subject. Dr. S. H. Stout alluded to the value of veratria ointment as a local application in neuralgia. Dr. A. Means made some remarks on electricity. Dr. W. G. Drake read a paper giving the report of a case in which the entire womb was removed by sloughing. Dr. J. B. Roberts, a case of obstinate hiccough. Dr. J. G. Hopkins, a remarkable case of gunshot wound of the spine.

A motion to create an additional Section in each Congressional District, on "Ophthalmology and Otology," after considerable discussion, was lost.

The annual oration was delivered at noon of the second days' session by Dr. W. R. Burgess, of Macon. Theme: "Hasty, unwise, and unfortunate medical literature." It was well received, and the thanks of the Association was tendered the speaker.

The following officers were elected for the ensuing year:

President—J. T. Johnson; 1st Vice-President—W. F. Holt; 2d Vice-President—T. H. Kenan; Secretary—J. B. Baird; Treasurer—W. R. Burgess; Orator—E. H. Richardson.

On the Sections:

First District.—Practice—J. G. Thomas, Wm. Duncan, John D. Martin. Surgery—R. P. Myers, G. A. Stone and J. W. Norton. Gynæcology—J. B. Read, J. C. LeHardy and J. P. S. Houston.

Second District.—Practice—W. M. Bruce, P. L. Hillsman and W. W. Twitty. Surgery—B. R. Doster, W. A.

Strother and T. S. Hopkins. Gynæcology—W. B. Tackett, E. W. Alfriend and T. A. Chappell.

Third District.—Practice—A. R. Taylor, A. W. Reese and S. B. Hawkins. Surgery—F. M. Jordan, G. F. Cooper, and A. A. Smith. Gynæcology—T. F. Walker, J. W. Tucker and J. B. Hinkle.

Fourth District.—Practice—A. W. Griggs, D. W. Johnston and P. M. Tidwell. Surgery—G. J. Grimes, W. W. Fitts and J. T. Slaughter. Gynæcology—J. W. Griggs, P. A. Standford and F. L. Wisdom.

Fifth District.—Practice—J. B. Baird, Paul Faver and J. G. Westmoreland. Surgery—A. W. Calhoun, T. L. Lallerstedt and J. A. McKown. Gynæcology—J. P. Logan, K. P. Moore and T. M. Darnell.

Sixth District.—Practice—W. F. Holt, Henry Gaither and H. V. Johnson. Surgery—I. L. Harris, J. B. Hendricks and S. L. Richardson. Gynæcology—W. O'Daniel, W. R. Burgess and J. E. Blackshear.

Seventh District.—Practice—A. S. Fowler, J. B. S. Holmes and E. H. Richardson. Surgery—R. F. Wright, W. S. Kendrick and W. B. Wells. Gynæcology—R. Battey, C. P. Gordon and F. R. Calhoun.

Eighth District.—Practice—W. H. Doughty, W. W. Battey and W. H. Foster. Surgery—A. S. Campbell, D. Ford and E. A. Dugas. Gynæcology—H. F. Campbell, J. S. Coleman and R. C. Eve.

Ninth District.—Practice—W. T. Hollingsworth, I. H. Goss and J. S. Simmons. Surgery—L. G. Hardman, A. A. Bell and R. M. Smith. Gynæcology—C. W. Long, J. W. Bailey and G. F. Wirsen.

Rome was selected as the next place of meeting.

BIBLIOGRAPHICAL.

ATLAS OF SKIN DISEASES. By Louis A. Duhring, M.D., Professor of Skin Diseases in the Hospital of the University of Pennsylvania, etc. Philadelphia: J. B. Lippincott & Co. Price, \$2.50 per part.

The third quarterly issue of this valuable production has been received, and we cheerfully commend it to the

medical profession as the most valuable work of the kind with which we have met.

As of the others, this part consists of four chromo-lithographic plates of royal quarto size, with descriptive and explanatory texts on sheets of the same size, and in large and clear type. The four plates of this issue represent Eczema (Squamosum), Syphiloderma (Erythematosum), Purpura (Simplex) and Syphiloderma (Papulosum et Pustulosum.)

EXCERPTA.

STRYCHNIA IN COUGH MIXTURES.—Dr. J. Milner Fothergill (London letter, *Philadelphia Medical Times*, Jan. 19, 1878), concludes that of all the agents which exercise a stimulant effect upon the nervous mechanism of respiration, strychnia is one of the most potent and useful. He says:

"Strychnia acts powerfully upon the expiratory part of the respiratory act, and kills by producing spasms of the muscles connected with expiration. It is very useful, then, when expiratory efforts are required for the expulsion of mucus gathered in the air tubes. In chronic bronchitis, with emphysema, it is of great service, and in the dyspnoea connected with advanced Bright's disease it is very efficacious. It produces good effects when given alone, and is a useful addition to ordinary cough mixtures. A combination of carbonate of ammonium, tincture of nux vomica, and tincture of squills, is a most excellent mixture for patients suffering from dyspnoea, and generally procures them "more breath," as they phrase it. One of the most important matters connected with such use of strychnia is its relation to sleep. In many of these cases sleeplessness is a prominent factor; and sleep can be procured only by a narcotic. But while the narcotic acts upon the nervous system generally, it also acts upon the respiration, probably at its center in the medulla, and the patients are apt to wake up with an attack of dyspnoea. A series of cases has demonstrated that by the use of

strychnia the respiration is so improved that the patient can go to sleep without the narcotic, and, more than that, sleep fairly well, and be quite free from attacks of breathlessness, which awaken the patient and cause him to add voluntary respiratory efforts to the automatic acts of respiration. By resort to strychnine these patients can be much relieved. * * * * By the use of strychnia during the day, a narcotic pill at bed-time is often deprived of its tendency to produce nocturnal dyspnoea; and strychnia may be usefully prescribed in cases of shortness of breath, where there has been also long indulgence in hypnotics. There is no such thing in this world as unalloyed good, and strychnia, so used, sometimes acts so powerfully upon the bladder-centers, and produces such irritation there, as to necessitate its discontinuance. But this is not the rule by any means."

ON THE TREATMENT OF Erysipelas by Silicate of Soda. This method has been employed specially by Dr. Alvarenga, of Lisbon, who credits it with great efficacy. His paper (an extract of which is given in the *Journal Med. Chirurg. de Pesth*) is based on forty-eight cases of erysipelas of the scalp, face, and limbs, both fixed and erratic. He asserts that, with the help of this remedy, the disease does not last more than four or five days. The solution of silicate of soda used is the same which is employed in the manufacture of immovable apparatus. It is diluted with seven or eight times its weight of distilled water. It is very important to make a preliminary essay of this preparation with litmus paper; so long as it is acid, soda should be added to neutralize it. The solution must be spread over the affected parts, morning and night, with a pencil, and the surfaces must be allowed to dry in the air. At the end of four or five days, when the fever, cedema, and redness, have subsided, the use of the silicate of soda is suspended, and the parts affected are covered up with cotton-wool steeped in oil of sweet almonds.—*London Medical Record*, Jan. 15, 1878.

ARNICA AS A REMEDY FOR BOILS.—In the *Journal de Therapeutique* for January 25, 1878, Dr. Planat writes that he

has found arnica possessed of rapid and constant efficacy in case of boils. He was led to try arnica in these cases from the result of physiological experiments made by him, with a view of studying the *modus operandi* of this substance on wounds. Its property of producing resolution, evidently due to its influence on the vaso-constrictor nerves, gave him the idea of applying it in all cases of superficial inflammation, such as boils, angina, erysipelas, etc. These experiments have convinced M. Planat that arnica arrests all furuncular eruptions with remarkable rapidity. M. Planat makes an exception in the case of diabetic boils, which have not come under his observation, and of carbuncle, which, by reason of its exceptionally serious character, he has treated in the ordinary way. He has been equally successful in cases of erysipelas and acute simple angina, but is not quite so clear about this as of the case of boils. The arnica was applied directly to the inflamed parts in the form of an ointment, composed of 10 grammes of extract of fresh arnica flowers to 20 grammes of honey. If this mixture be too thin, lycopodium or althea powder, or any similar substance, may be added so as to give it the necessary consistence. It is spread on diachlon plaster or oiled silk, and applied to the boil. Generally it is sufficient to renew this dressing once in twenty-four hours. Two or three applications generally cause the boil to die away at all stages of its evolution.

Dr. Planat has also given internally, in cases of this character, tincture of arnica in doses of from 25 to 30 drops in a draught to be taken in teaspoonfuls every two hours, and has thereby obtained so rapid an extinction of the furuncular eruption that it seemed impossible to him to deny the special action of the drug. He, however, noted greater efficiency from its direct application.—*Lond. Rec. February 15, 1878.*

QUINIA PILLS.—As I have often seen formulas in various medical journals for compounding pills of quinia, none of which seem to have been satisfactory, permit me to inform you that if a small quantity of powdered gum arabic be added to the quinia and thoroughly mixed with it, and

glycerin added, a few drops at a time, triturating well after each addition, it will make an excellent mass, which can be easily and leisurely worked into nice, smooth and compact pills, which will remain unalterable indefinitely.

I have used the above mentioned ingredients in the preparation of quina pills nearly seven years, and think if they are tried perfect satisfaction will result.—*Journal of Pharmacy*.

TREATMENT OF DELIRIUM TREMENS.—C. S. Wills states, in the *British Medical Journal*, February 2, that he has used capsicum for more than twelve years in the treatment of delirium tremens, with unvarying success; it has never failed, no matter how violent the patient may have been. In extreme cases, thirty grains in bolus may be given every hour, but milder cases simply require smaller doses.

SANTONINE POISONING.—Prof. F. Forchheimer (*The Clinic*, January 5th, 1878) summaries the symptoms induced by a toxic dose of santonine as follows: "Sopor, the eyes fixed, pupils dilated and without reaction, the lips red and swollen, the respiration stertorous, pulse slow, skin cold. These symptoms become more and more intense, and suddenly convulsions set in, which rapidly extend to the muscles of respiration, so that respiration becomes very slow. Irregular and long pauses occur, in which the breathing seems to be entirely stopped. With all this the patient usually passes urine involuntarily drop by drop."

Chloral hydrate is antagonistic to santonine, and may be used carefully. Inhalation of ether controls the spasms.

JABORANDI PROPOSED AS A REMEDY IN HYDROPHOBIA.—J. G. Sinclair Coghill, M.D., F.R.C.P., Edinburgh (*British Medical Journal*, January 5th, 1878):

Dr. Coghill, from observations on cases of hydrophobia, concludes that, whereas, the salivary glands are the chief emunctories of the poison in the brute at least, and, whereas, the action of the salivary glands is suspended in man when attacked by this disease, therefore, to restore the functions to those glands, should be the first and especial aim of the medical attendant.

Reasoning thus, the doctor concludes that jaborandi, as being the most efficient sialogue and diaphoretic known, will most completely fill this indication. The drug should be given in full doses, with a view to producing its effects as speedily as possible. An infusion of a drachm of jaborandi to the ounce of water may be given per rectum, or a concentrated water extract may be given hypodermically.

CHLORAL HYDRATE AS AN ANTISEPTIC.—As an addendum to the abstract of Dr. Larrabee's paper in the last number of the *News* (p. 59), I desire to call attention to the special use of this agent as an application in uterine cancer. I have used it in a number of cases, and have found nothing equal to it. Not only does it correct the intolerable stench, but it relieves the stinging pains which are so common in these cases, and it changes the character of the discharges, making them more healthy, even at times almost resembling laudable pus. If by its use we can accomplish only the first of these objects, it is a sufficient warrant for a more extended trial of the remedy, and I feel confident that it will not disappoint expectation. I have employed it by saturating little pledgets of cotton with a solution of varying strength, according to the character of the discharge, of from ten to thirty grains to the ounce. By attaching a string to the pledgets they are easily removed by the patient after a few hours, without any danger of starting up hæmorrhage. The application is also of equal value on open cancers and foul sores of almost any character.

CONSTIPATION.—Dr. J. Lewis Smith (*Virginia Medical Monthly*) says that the following pill may be used in those cases not relieved by the use of fruits and laxative articles of diet:

R.—Ext. belladonnæ, gr. iij.
 Ext. nucis vomicæ, gr. vi.
 Podophyllin, gr. vi-ix:
 M. Div. in pil. No. xviii.
 S. Take one when required.

ATLANTA Medical and Surgical Journal.

VOL. XVI.]

JUNE—1878.

[No. 3

Original Communications.

PUERPERAL ECLAMPSIA.

By W. B. PRATHER, M.D., FLORENCE, GA.

For the last year or two I have seen several communications in reference to the treatment of puerperal eclampsia, and having had several cases to treat myself in the last few years, thought I would contribute this, my mite, and if you thought it worth mentioning in the JOURNAL, you are privileged to do so.

On the night of the 4th inst., was called to see Fanny T., (colored), who was about six and a half months advanced in her eighth pregnancy. Upon enquiring, I learned for several days previous to my being called in she had complained of headache, was drowsy and generally indisposed. Feet and legs presented a dropsical appearance, and face puffed.

I had not been in the room more than five minutes when she was seized with a convulsion of the hardest kind. I corded the arm and took by guess twenty or twenty-five ounces of blood, and used chloroform inhalations, veratrum (Norwood's) and morphine hypodermically. This lessened the severity of the convulsions somewhat, and as soon as the patient could be induced to swallow, I gave 15 grains calomel every two hours until four doses were taken. I remained with the patient until the following evening, when, by the use of ergot, she was

delivered of a male child, dead probably two or three days. The convulsions in this case lasted at lengthened intervals for twenty hours, but had only two light ones after the birth of her child. During all this time the bowels had not responded to the calomel; I therefore ordered an enema of warm water and common salt, which effectually moved the bowels. From this time forward she gradually improved until the end of the third day she regained consciousness, and at the present writing the recovery is complete, with the exception of weakness, which time will remedy.

This case was treated on the same general plan with four others, with recovery of all but one case, death taking place in thirty minutes after my arrival.

I will state here that I was induced to use the hypodermic veratrum by seeing mention made of it in the JOURNAL by Dr. J. W. Griggs, of West Point, Ga.

In conclusion, I would say, that a judicious use of the lancet, followed up by inhalations of chloroform, hypodermic veratrum and morphia, with large doses of calomel, constitutes the best method of treatment.

Reports of Societies.

ATLANTA ACADEMY OF MEDICINE.

J. G. WESTMORELAND, M.D., REPORTER.

ATLANTA, GA., April 15, 1878.

Dr. J. T. Johnson, Vice-President, in the chair.

Dr. J. G. Westmoreland reported the case of a young lady who is suffering from partial paralysis of the right lower extremity with hyperæsthesia of the dorsum of the foot. The difficulty has existed for seven months, and was, according to the history received from the patient, preceded by erysipelatous inflammation of the leg and foot. Several years previously she had an attack of typhoid fever, which left her with slight numbness and in-

activity of both thumbs; the left was restored in a short time, but the right thumb has never regained its natural feeling. The patient does not limp very perceptibly, but finds great difficulty in walking much during the day, from apparent weakness of the muscles concerned in locomotion. No organic or functional disease of abdominal or pelvic viscera could be detected by which the nervous difficulty could be accounted for by reflex impression.

The treatment instituted consists of electric and strychnine stimulation of the spinal nervous system and means to improve the appetite, which is poor, and to give improvement to the digestion. For these purposes interrupted galvanic or faradic current daily, one thirty-second of a grain of strychnine three times a day, with muriated tincture of iron and pancreo-peptine occasionally. The preparation of iron is given more with the view of obtaining the tonic effect of the acid upon the stomach, to increase the appetite and digestion, than for any effect of iron upon the blood or nervous system; both of which, however, may be of some consideration.

Dr. Baird said the case would certainly receive benefit from electricity, and that he should certainly continue that means. In such cases he thinks the faradic decidedly preferable to the uninterrupted galvanic current. He thinks the shocks of the former more powerful upon the muscles, and causing them more forcibly to contract, is decidedly more useful in paralysis than the continued current of galvanism. He thinks favorably of strychnine in gradually increased doses until the effect is perceptible in the muscular system.

Dr. Baird reported a case of mammary abscess which was treated with fomentations, anodynes, etc., but finally, from accumulation of pus, required lancing. Subsequently she had symptoms of a return, and the breast, being treated as before, did not improve, when the treatment by quinine was adopted, and successfully in preventing suppuration.

He also reported a case of diseased thumb in a female who had suffered with neglected felon, resulting in death of the distal phalanx, keeping up constant discharge through small openings. The patient objecting very positively to

the use of the knife, the necrosed bone was effectually removed with forceps through an opening at the end of the thumb.

ATLANTA, May 13, 1878.

Dr. J. F. Alexander, President, in the chair.

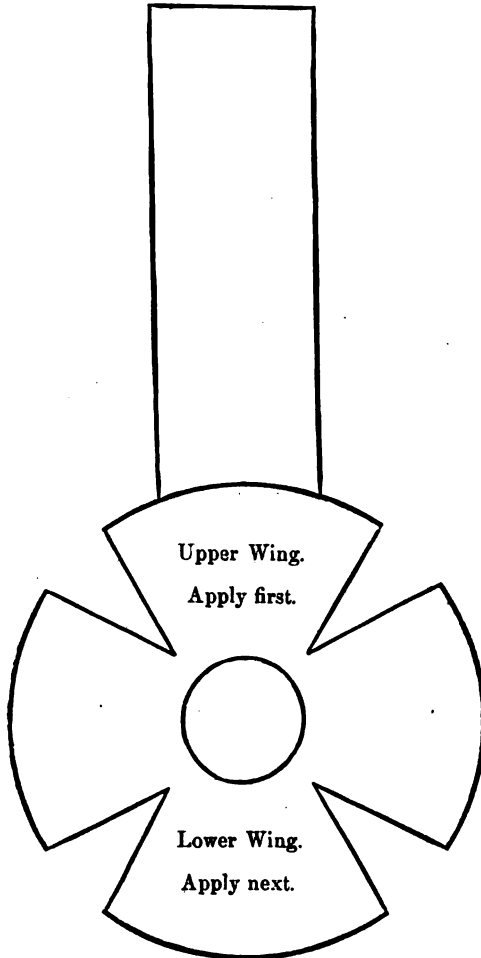
Dr. A. W. Calhoun reported a case of cysticercus in a young lady sixteen years old. The disease is the result of a parasite in the globe of the eye. The animal was detected between the choroid and retina, and vision is more and more affected as the animal increases in size. He thinks finally the parasite will bore through the retina and find its way into the vitreous humor, rendering it opaque, and thereby cause complete blindness. Dr. C. is at a loss what is best to do for relief, as an operation for removal of the parasite would be hazardous, and there is perhaps no other means of preventing the above result of its growth.

Dr. Baird mentioned another case of threatened mammary abscess, similar to that reported at the last meeting, in which quinine was given after fomentation and other means, and after suppuration was strongly threatened, and with the same result as the former case. He is not positively certain, of course, whether the quinine led to the favorable result, but the two cases being relieved after taking quinine, and the first case going on to suppuration after the same remedies had been used except the quinine, he is inclined to this opinion.

Dr. Todd alluded to the use of fluid extract of phytolacca in the dose of twelve drops every three or four hours, in mammary abscess, and mentioned cases in which the remedy seemed to prevent suppuration.

Dr. L. G. Alexander called attention to the treatment of this disease by strapping the breast with adhesive plaster cut in circular form large enough to cover the mamma. In the center of this a hole is made large enough for the mamma to pass through. Four segments are to be cut in the circle one inch wide and coming to a point two-thirds of the distance to the central hole for the nipple. The breast being emptied of two-thirds the milk, the upper

portion, which has attached a strap two inches wide passing over the shoulder, is made to adhere, and then the lower portion, so as to give firm pressure and support, and then the lateral wings.



This treatment he also uses successfully in preventing accumulation of milk when no nursing can be had. He has used it with relief also in enlarged mammary glands at the menstrual period.

Dr. North, of Senoia, being present by invitation, gave a succinct history of a case of stone in the bladder, in which rapid recovery occurred after extraction of the stone by the bilateral operation.

He also reported a case of epileptiform convulsions, occurring at periods of three or four weeks, and always during the night while asleep. The disease has been under treatment for three years, but without any perceptible permanent benefit. Bromide of potassium in the dose of twenty-five grains three times a day has been the principal treatment which has been adopted.

Dr. L. G. Alexander was of the opinion the case is clearly one of epilepsy.

Dr. Baird advised the use of bromide of potassium in much larger doses, and continued for several months, as the proper treatment for ordinary epilepsy. He advised the use of strychnine in this case, and said it is known that bromide lessens the amount of blood in the brain, while strychnine increases it. Also, that less blood is found in the brain during sleep than when awake. As the convulsions came on during sleep in Dr. North's case, he infers that the remedy which increases blood in the brain will act favorably. He therefore would, by all means, give strychnine in the case.

Adjourned.

Selections.

ROTHELN, RUBEOLA—GERMAN MEASLES.—The two last preceding meetings of the Society having been favored by very able reports upon dermatology, by Prof. Yandell, considered in general and somewhat in detail, it will be the purpose of your committee at this session to call the attention of the profession to an epidemic exanthem that has been more or less prevalent throughout the State during the last year, and whose behavior and characteristics I have been enabled recently to observe. I allude to rubeola rotheln, or German measles, as it is more popularly called.

Unfortunately for our nomenclature, never very exact or praiseworthy, much confusion is likely to spring from adopting the latest appellation given to this exotic efflorescence, rubeola, by which title it is described by Dr. Thomas in Ziemssen's admirable work. As all English and American physicians have become familiar with that as the proper cognomen of measles, and any writing in our language which produces the term rubeola will most certainly carry the reader's mind to a consideration of measles; and as it is with that malady that the disease under consideration is most likely to be clinically confounded, it is doubly to be regretted that the nomenclature should also be identical; for unlimited confusion must necessarily ensue, when trying to unravel and classify a doubtful case, to find different phenomena described as belonging to identical names, or the reverse. The only other classical designation, rotheln, is almost unpronounceable by other than a German tongue; and the vulgar cognomen, while sufficient for family use, will hardly be acceptable to our more fastidious faculty. While disclaiming any hope of meeting a second in my suggestion, I think I will venture to propose that a happy solution of this difficulty could have been found, before the publication of Ziemssen's Cyclopaedia, in the adoption of the term "*rubella*" (as has already been applied to this or a similar eruption) as a name carrying with it the significance of *diminutive*; then rubella would signify *little measles*—just the idea that best describes in a brief word the disease in question.

Not until the middle of the last century was any attempt made to eliminate the phenomena of rotheln from those of measles, scarlatina, and roseola. German writers were the first to begin to bring some order out of the chaos surrounding these perplexing exanthems, and the clearest and most satisfactory works upon the subject are by German authors. English writers are yet exceedingly muddled and perplexed, and give no clearly defined description of this disease. Mr. Tilbury Fox, who has written an exceedingly good and useful book for the busy practitioner, is entirely at sea in regard to the distinctive entity of rotheln, and describes the general characteristics of the disease in half a dozen different places in his book, and under a multiplicity of names, and confounds probably several distinct diseases. In our day, and in our own country, a great variety of opinion exists, and a good many pages have been written, attempting to give the disease its proper status as a distinct variety of acute exanthem, instead of the erroneous idea that it was a hybrid or bastard form of measles or scarlatina.

These two last-named diseases are the ones with which rotheln has been most often confounded; the reasons for difference of opinion as to which of these diseases it most resembles being accidental, and will be pointed out further along.

Ignorant or designing persons have taken advantage of this resemblance to these forms of grave disease to claim great proficiency in the treatment of scarlet fever, having in hand great numbers of cases of this mild and insignificant exanthem, and claiming their recoveries as so many cases saved from death from scarlatina.

An epidemic of rotheln is at this time prevalent in my immediate vicinity, and I will give here the following clinical history.

After an uncertain period of incubation, covering probably a fortnight, without any very noticeable prodromata, an eruption becomes visible on the face and neck, and quickly spreads over the chest and to the extremities. This reaches its climax in about twenty-four to forty-eight hours, and occupies about the same period in taking its

leave, the parts first "breaking up" being the first to recover. In many cases the eruption "comes and goes," to use a very homely and a very expressive term; at times being almost entirely invisible on any part of the body, and in a little while the whole surface will be thickly covered. The most noticeable feature within my observation in regard to the eruption itself, is the fact that in nearly if not quite all the cases, the eruption has a *fady* appearance, *as if it were subcuticular*; looking as though a thin pellicle covered it, much like measles in its early stages, before the eruption is well out. This is characteristic throughout the course of the disease. As it is in the beginning; so at the climax; in other words, not "coming out," like measles, to a bright blush. This renders the rash much less bright in color, and less prominent as a feature of the disease than the rash of measles. Again, unlike measles, I have met with no case that the eruption could be felt above the cuticular surface, as in measles, the patches being under the surface, and simply a discoloration and not an elevation.

In no case have I met with any *desquamation*, though it is possible in an exceedingly severe form the cuticular inflammation may run so high, or a vesicular patch be produced which might give rise to a slight death of cuticle.

Glandular Swellings.—About the second day, or the period of climax of eruption, the *submaxillary* and *cervical glands* become inflamed and swollen, often to a very great degree, forming the most painful feature of the disease. The parotids will at times also become more or less affected, but the most frequently-sized and greatest sufferers are submaxillary. These remain swollen and tender, generally several days after the disappearance of any other symptom.

Buccal Symptoms.—As early as the first or second day the buccal mucous lining becomes inflamed, and ulcerations appear on the gums, tip of tongue, and the lips. Frequently the lips become enormously swollen, and the whole mucous border covered by ulcerations; and in a few days thick, black, or yellowish crusts render the taking of food or drink painful and difficult. The tonsils now and

then are a little sore and swollen, but this rarely occurs. I have not seen a patient who had "sore throat," but get histories in a few instances of pharyngeal inflammation of a light character, generally prodromatous, however, and not as an accompaniment or sequel, as in scarlet fever.

Tongue.—From the beginning of the eruption until the period of decline, in the worst cases, the tongue is covered by a very dense, long, yellowish brown epithelium, but is not dry, nor does the color get darker. The end is blistered and the edges red.

These are the more prominent general symptoms, and is a picture of the most severe forms of the disease. A very large percentage escape with these symptoms scarcely more than shadowed, and the patients rarely go to bed, and seldom think it necessary to send for a physician. *In only the worst forms of the disease is the temperature appreciably elevated.* I have never found it over 100.2°, and that only in one case.

Anomalous Variety.—In a few instances I have met with cases giving all the symptoms detailed above, *but without any eruption.* In these cases the cheeks and forehead are of the deepest and darkest red hue; not the bright scarlet of scarlet fever, but a rich *mahogany crimson* (if I may invent a shade). Some whole families have this form of disease, and occasionally both forms will appear in the same family. Within my observation all the cases of this anomalous form of the disease were in patients with dark hair and eyes—brunettes, in other words. It is from this form, doubtless, that rotheln has been confounded with scarlatina, as these cases all had the glandular and buccal symptoms in their worst forms.

Differential Diagnosis.—1. From either scarlatina or measles: the absence generally of a prodromata, and when they occur in their light form.

2. From measles: the eruption in rotheln is not raised above the cuticular surface, looks fady, and as if it were under the cuticle.

3. From scarlatina: by the absence of the punctate form of eruption, the crimson blush being general over the face, and confined to that surface—as I have not been able

to see the deep blush under the clothing; also by the absence of the anginose symptoms so marked in scarlatina; and finally by the want of desquamation, renal, or other sequelæ.

4. The severe buccal symptoms, the ulcerated tongue and lips, the thick, angry-looking crusts, and submaxillary glands are more pronounced in bad cases than in either measles or scarlatina.

The critical Test of the Thermometer.—The temperature is seldom above the normal—never more than 100.5° ; whereas in measles it will reach 104° or 105° , and in scarlatina it may even attain 106° .

6. The shorter course of the disease: the period of eruption only lasting from two to four days, and the rapid and entire recovery without sequelæ.

7. These diseases are not severally naturally protective, an attack of one affording no immunity from either of the others. At this time I have charge of a family of seven persons who have gone through an epidemic of rotheln, each of whom had previously had measles.

Treatment.—Rotheln requires no special treatment. In the vast majority of cases a physician is not called. The disease runs a light and brief course, and only requires simple medication for accidental complications—a mild purgative and some simple mouth-wash.—*Louisville Medical News.*

RECENT PROGRESS IN PHYSIOLOGY.—*Air in the Circulatory System.*—The various disturbances which may be produced by the mixture of free air or gas with the circulating blood have been carefully studied by County in several series of experiments on animals which were usually slightly curarized. His conclusions are that bubbles of air mixed with the arterial blood are an obstacle to the flow through the capillaries which may be estimated at several centimeters of mercury, the obstacle increasing with the amount of air. The rapidity with which blood mixed with air circulates through any organ increases, as in the case of normal blood, with a rise of the general blood tension and with a diminution of local vaso-constrictor activity. The

obstacle varies very greatly in different organs. Thus "foamy" blood traverses the capillaries of the limbs and brain much more readily than those of the abdominal viscera, a result the opposite from that which might be expected from the relative size of the capillaries in these organs.

The immediate cause of the dangerous and even fatal consequences of mixing air with the blood seems to be a stoppage of the circulation. This stoppage may, according to the author, be brought about in three different ways.

I. By the accumulation of air in the right side of the heart. This accumulation may occur whether the air is introduced by the veins or the arteries, and its effect is in all cases to distend the right side of the heart to two or three times its normal volume, producing mitral insufficiency. The elasticity of the air, which causes it to be compressed instead of driven out by the systole of the right ventricle, and its lightness, which keeps it always in the upper part of the cavities, seem to afford a mechanical explanation of this distension. The distended ventricle contracts less and less completely, and the blood, having a free passage backward through the mitral valve, gradually ceases to circulate.

II. By the direct obstacle to the circulation presented by the air in the capillaries. The stoppage of the circulation thus produced is, of course, more or less localized, and the gravity of the result will depend upon the importance of the organ in which the stoppage occurs. If the lungs are the organs affected, as is commonly the case when air enters the veins, the phenomena of asphyxia will be produced. The paralysis which is so marked a symptom in the so-called "caisson disease" seems to be an affection of this sort, the air set free in the blood by too sudden a "decompression" obstructing the circulation in the nerve centres.

III. By vascular paralysis resulting from long anæmia of the nerve centres. This subject has been studied by the author in a separate series of experiments, in which local anæmia was produced by the injection of lycopodium into the blood-vessels supplying the various nerve centres.

The danger resulting from the entrance of air into the veins has recently been made the subject of a clinical lecture by Fischer, to which valuable exposition the reader is referred for the bibliography of the subject. In experiments on rabbits the author found that a free opening into the internal jugular vein in the lower part of the neck always caused sudden death preceded by an audible sound of the entrance of air and of dyspnoea. The same result generally followed the opening of the axillary vein, but not that of the external jugular or femoral veins. The effect was the same whether the animals were anæmic or full-blooded, starving or well-fed. Autopsies invariably showed the right side of the heart to be distended and filled with foamy blood, which could also be traced into the finest subdivisions of the pulmonary artery. If the air was allowed to enter slowly but constantly, the same fatal result followed, except in those cases in which only small amounts were employed, for example, ten to twenty cubic centimeters in half an hour, an observation quite in accordance with our knowledge of the feeble power of the blood to absorb nitrogen. The author discusses the various views which have been held in regard to the cause of death following penetration of air into the blood-vessels, and, in view of the fact that the heart often continues to beat after the occurrence of the most alarming symptoms, is inclined to adopt the opinion of Magendie and Poiseuille, that asphyxia is, in the majority of cases, the immediate cause of death. In regard to the manner in which asphyxia is brought about, the author adopts the theory of Panum, that the air acts like an embolus in the pulmonary artery and interrupts the normal supply of oxygenized blood to the left ventricle.

Movements of the Vocal Cords.—The recent application by Ortel of the so-called stroboscopic method of observing rapid vibrations to the study of the movements of the vocal cords, seems likely to lead to important additions to our knowledge of the physiology of vocalization. This method, which was first employed by Plateau in 1836, consists in observing a body having a rapid but unknown rate of vibration at intervals which can be regulated to

correspond to the unknown rate. This object can be accomplished either by illuminating the vibrating body by a rapid series of electrical sparks, or by looking at it through holes in the edge of a revolving disc, or through a perforated disc attached to a tuning-fork. If the rate of the observation coincides with that of the vibrating body, the latter, being observed always in the same phase of its vibration, presents the appearance, owing to the persistence of the impression on the retina, of a body perfectly at rest. If the rate of the observation is a little slower than that of the vibrating body, the latter, being at each observation in a somewhat more advanced phase of its movement, will appear to execute its vibration at a rate corresponding to the difference between the rates of observation and vibration. Thus a body vibrating two hundred times in a second, seen through a stroboscopic apparatus giving two hundred and one observations in a second, will appear to vibrate once in a second. Thus by knowing the rate of the observations and noting the rate of apparent stroboscopic movement, the rate of the vibrating body may be determined. It is also possible by this method to study accurately the appearance presented by a vibrating body in every phase of its movement.

The application of this method to the study of the vocal cords requires the use of the most powerful sources of information; for example, sunlight, electrical light, or lime light. Oertel's observations, which have as yet been given only in preliminary communications, show that in ordinary chest tones the vocal cords vibrate throughout their whole length and breadth in such a way that the excursions of the various points of the cord increase with their distance from the outer border. In falsetto tones, on the other hand, though the cords vibrate in their whole length and breadth, the vibrating surface presents a curved nodal line, about one-third of the distance from the free edge to the attached border, the parts of the cord on opposite sides of the nodal line being of course always in opposite phases of vibration.³⁰ In very high falsetto tones a second nodal line may be observed, indicating a still further subdivision of the vibrating surface.

Oertel suggests the possibility that this method of research will throw light upon various obscure laryngeal troubles, particularly those affecting singers, dependent, probably upon anomalies of vibration and differences of tension of the vocal cords.

The Telephone as an Instrument of Research.—Though so short a time has elapsed since the invention of the telephone, it has already found numerous applications as an instrument of physical and physiological research. Goltz has shown that the electrical currents produced in the conducting wires by the different vocal sounds may be used to irritate the motor nerves of the frog, and that contractions of different intensity correspond to the different vowel sounds, *a* and *o* producing the most powerful, and *i* (as in *mien*) the weakest stimulation. The result is the same whether the conducting wires of the telephone are connected directly with the nerve or with the primary coil of an induction apparatus the secondary currents of which furnish the stimulus.

Du Bois-Reymond has made similar observations, and has also given reasons for regarding the telephonic transmission of sounds as an additional argument in favor of the theory of Helmholtz, that the timbre or “clang-tint” of a sound is not altered by a change in the relative position of the component vibrations, causing them to combine in different phases. For he has shown by a mathematical discussion of the conditions under which the transmission occurs that a change of this sort must take place, and yet the sounds are transmitted unaltered in timbre from one telephone to the other.

Hermann has investigated the subject of telephonic transmission by induction, and has found not only that sounds may be transmitted unaltered when one telephone is connected with the primary and the other with the secondary coil of an induction apparatus (or still better with the two parts of a galvanometer coil), but that the result is not interfered with when several other coils are introduced between the hearing and the speaking telephone, so that the sounds are produced in the latter by induced currents of the third, or even fifth order. In view of this

fact, Hermann maintains that the law of induction, assumed by Du Bois-Reymond in his above-mentioned calculation, cannot, for some reason or other, be applied to oscillatory changes of intensity, such as are produced by the telephone.

Hermann has also employed the telephone as a means of studying the feeble electrical currents of muscles, and finds that when the longitudinal and transverse sections of a muscle are connected by unpolarizable electrodes with a telephone, and a mechanical interrupter is included in the circuit, a noise is heard corresponding to the interruption. That the muscle current is really the cause of the sound is proven by the fact that silence ensues when the electrodes are withdrawn from the muscle and placed in contact with each other. Although the constant current of the muscle at rest is thus readily demonstrated, all attempts to render audible the rapid variations of this current (the "action current" of Hermann) which accompany a tetanic muscular contraction have as yet yielded only negative results. This is the more surprising from the fact that when tested with an ordinary induction apparatus with a vibrating armature and a sliding secondary coil, the telephone responds with an audible sound to induced currents of so feeble intensity that they will not stimulate the most sensitive nerve-muscle preparation; yet when the nerve of this preparation is applied to the surface of a tetanically contracting muscle, the well-known phenomena of secondary tetanus ensues. It seems, therefore, that the telephone is more sensitive than the frog's nerve to the secondary currents of an induction apparatus, while for the electrical currents which accompany muscular activity, the reverse is the case.

To the currents produced by the thermopile, Hermann found the telephone very sensitive. If a telephone, a Heidenhain's thermopile, and a mechanical interrupter are included in an electrical circuit (the latter instrument being placed in an adjoining room on account of the noise produced), it is only necessary to bring a finger into the neighborhood of one of the surfaces of the pile to hear a distinct noise. A similar use of the telephone in connec-

tion with a thermopile has also been described by Forbes.

Finally, it should be mentioned that the telephone affords a valuable method of testing the vibrating interrupters for electrical currents so commonly used in physiological researches. It is usually assumed that the number of interruptions correspond to the number of vibrations as determined by the tone of the vibrating spring. The accuracy of this assumption can be readily tested by observing whether a telephone included in the circuit gives the same tone as the interrupter.

It is not yet possible to speak with certainty of the value to the physiologist of that instrument which is so closely allied to the telephone, namely, the phonograph, but it is evident that it cannot fail to render important service in the study of vocalization and articulation. For indications of the problems likely to be solved by its aid, the reader is referred to the communications of Jenkin and Ewing.

DIAPHRAGMATIC HERNIA.—N. Hensley, *act.* 45. About the last of October, 1876, was stabbed in the left side, between the sixth and seventh ribs, about four inches below and behind the left nipple. Was called to see him with Dr. Clemments, a few minutes after it happened. We probed the wound enough to be certain it had penetrated the thoracic cavity. Had him placed with the left side down. There was considerable hemorrhage. He was kept very quiet four or five days, when he was removed to his home, four miles distant. In three weeks he was able to come to town. I saw and prescribed for him frequently in the next twelve months. His health was not good, though he was able most of the time to do the work of a farm hand. Complained very much of pain in his left shoulder, ranging down through the precordial region to the epigastrium. A gurgling sound was discovered by auscultation, and a clicking sound of the heart. There was also intermission of the pulse. In March, 1877, he had a severe attack simulating gastritis, with obstinate constipation, which resisted for four days the usual means to remove it.

When the bowels were freely opened, immediate relief

was obtained. Nov. 10, 1877, worked hard all day, digging potatoes; ate a hearty supper; soon after eating was taken with a violent pain in the left shoulder, extending down to the epigastrium, and incessant vomiting. Threw up everything as soon as swallowed. The bowels remained obstinately constipated, and nothing gave even temporary relief, except hypodermic injection of morphia. He died on the 18th. A *post-mortem* examination was held—present, Dr. Thomas Linley and Dr. C. H. Linley, of Salem, Kentucky.

Rigor mortis well marked, body emaciated, no distension of the abdomen except a slight fullness at the epigastrium. On removing the sternum, a large, mahogany colored tumor, which proved to be the fundus of the stomach, occupied and nearly filled the left side of the thorax, the heart being crowded over to the right side beyond the median line. The left lung greatly compressed and hepaticized. The stomach, or rather the strangulated portion above the diaphragm, was distended with gas, but contained no fluid or other ingesta. A part of the omentum and transverse colon were also included in the hernial opening, which was about one and a half inches in diameter, and presented a ragged border, and corresponded with a well-marked cicatrice where the knife entered between the sixth and seventh ribs.

The parts embraced in the hernial opening appeared to be gangrenous, and recent adhesions of the bowels immediately below the seat of the stricture were noticed. The small intestines were empty, and all the abdominal viscera, except in the high neighborhood of the strangulation, appeared to be healthy.

SUBSTITUTE FOR THE MOTHER'S MILK DURING INFANCY.—

While looking over the New Orleans *Medical and Surgical Journal* for April, 1878, my attention was drawn to an article in the "Current Medical Literature" department, entitled "Elementary Advice to Mothers and Nurses." The paper was read by M. Bienfait, before the Societe Medical de Riems, as a "draught of the advice to be given to mothers and nurses by the Society for the Protection of Child-

hood," was adopted by the society and published in the *Canadian Journal of Medical Science*.

While coinciding in the main with the views therein expressed, I feel compelled by experience and observation to take exception to the first article contained in the "Advice," entitled "Nursing," and to which the author has devoted nearly half the space allotted to his entire subject. Not that the rules laid down by him are essentially wrong, for if carried out to the letter, they would undoubtedly meet most of the requirements of that first and very important period of childhood. It is the almost utter impossibility of their being complied with by the great majority of people that renders the article on nursing almost a nullity as far as its usefulness is concerned. Let us pass over his prefatory remarks to the effect that "it is the duty of a mother to nourish her child from her own breast, or, her health not permitting, provide for it a nurse," as being self-evident facts, and take up that portion devoted to substitutes for human milk. Therein consists the great difficulty; and I have no doubt of the thousands of young children who die each year, and the equally great number of those that are puny and unhealthy, that one meets daily, such result is due in many instances to the unavailing attempts made to follow similar advice to that given in M. Bienfait's article.

He advocates the substitution of animal milk, that of the cow or goat, and gives minute details as to how it should be prepared, diluted, warmed, etc.; that the milk from the same animal should be used invariably, if possible, and of course the milk should be pure in the first instance.

The foregoing would prove very good, no doubt, if only within the range of common possibility. How many people resident in cities are so circumstanced as to be able to do this? Even in the country, it is physically impossible to maintain for months a regular system such as this; although pure milk is there so much more easily obtained. Indeed, one is ordinarily very fortunate if a constant supply of fresh milk obtained from different animals (of the same species) can be had. It is a known fact that the

milk secreted by one and the same cow is subject to variation from day to day, said variation being controlled by the quantity, quality and variety of the food obtained, and is liable to still further changes having their origin in disturbances of the functions of digestion, from which animals are scarcely less exempt than members of the human family. Further than this, the *first* milk drawn from the cow is much thinner and less rich than the *last* or "stripings" from the same milking. Bearing this in mind, it is evident that the digestive apparatus of the child that is being fed after the fashion recommended by M. Bienfait, has to deal with a very different article of food at nearly every meal, and that, also, when of an age and development that render it eminently unfit for any such contest, the repeated renewal of which must assuredly inure to its disadvantage.

In cities, where people have to rely upon the tender mercies and elastic consciences of the professional milkman, the difficulties are augmented. If we pay for a pure article of milk, I question greatly whether it would in every instance bear thorough analysis unscathed.

Many are familiar with the anecdote of the Frenchman who sent for his milkman and bargained for a regular supply of milk at six sous per pint. He demanded that it should be pure and undiluted. "Then, monsieur, the price will be ten sous." "You must milk the cow in the presence of my valet." "In that case I will be compelled to charge fifteen sous."

The manifold difficulties in the way being sufficient to prevent the following of this advice with advantage, the question naturally arises, have we any better means at our command? Emphatically we have. I do not wish to be regarded as one who would "tear down without building again," and can say positively, basing my conclusions upon experience and repeated tests within the past four years, that in the best grade of condensed milk we have the best possible substitute for the milk of the mother.

Its advantages are many. It agrees perfectly with the child from the day of its birth; it can be freshly prepared at any moment, night or day, in any desired quantity; it

is of uniform strength or richness, the contents of the cans being uniform throughout; and lastly, but not least important, the cost places it within the reach of all, and it is to be found in nearly every grocery or country store in the United States. My experience has been with the "Eagle Brand" of milk (and I would advise all to avoid the cheaper and inferior qualities), and in no single instance could any objection to its use be urged. My first experience with it was while in charge of the Obstetrical ward of the Charity Hospital, New Orleans, and the happy results obtained with it among the children born in the ward (many of whom were not nursed by their mothers at all) led me to urge it since then in my practice whenever, from any cause, artificial nursing had to be resorted to. During its preparation, the condensed milk is rendered much sweeter than that usually fed to infants, but has always, as far as my observation extended, agreed perfectly with the child. Even during dentition with accompanying diarrhoea, so often seen in practice, it has never produced any exaggeration of the disease in any case I have met with.

At the present time I have under my observation a male child seven months old, that has been fed *exclusively with condensed milk*; having been denied all other food or drink since birth. It is very robust, and has not had a day's sickness; is now teething without trouble. At its birth it weighed seven and one-half pounds, when six months old weighed twenty-one and one-half pounds, and has increased in weight very perceptibly within the past month: a fair specimen of a fat, muscular little christian, and an equally good one of the effects of an exclusive diet of condensed milk. A lady in my vicinity having lost two children consecutively while teething, from general debility, and mal-nutrition, brought about by an insufficient supply of her own milk and the wretched substitute therefor, namely, that of the cow, with all its accompanying ills, is now using this preparation for her third child with good results, and bids fair to succeed in raising it with but little trouble.

The method of giving the condensed milk is very sim-

ple. In the first month dissolve a dessert-spoonful in about three-fourths of a pint of hot water, and then let it cool to the temperature of the body. Each successive month slightly increase the quantity of milk until the sixth, when the maximum is reached of two large table-spoonfuls to the pint of milk.

As regards the hours for feeding, given with such precision by M. Bienfait, I have only to say that in permitting the instinct of the child to be the guide, one will seldom go astray. When it is hungry it very generally makes it manifest, and if not neglected for too long a period, will never take more than it actually needs. The best nursing bottle I find to be a common six or eight ounce, clear glass bottle, provided with a plain black rubber nipple. Each time it is used, both the bottle and nipple should be thoroughly washed, and the latter placed in a glass of cold water until again wanted. The bottles and black rubber nipples are both very cheap, and to be had from any druggist. The regulation nursing bottle (as usually made, with fancy cap, rubber tube, etc.) is more expensive, and very difficult to keep thoroughly clean.

In nearly every instance, I have had to overcome a prejudice in the minds of the parents against what they considered an artificial milk, but have subsequently been gratified by their hearty endorsement.

Should I—by presenting thus publicly this easy and simple mode of properly nourishing children when the maternal source fails them—be instrumental in ever so slight a degree in ameliorating the condition or saving the life of only one little innocent, I shall feel that my labor has not been in vain.—*G. A. B. Hays, in the New Orleans Medical and Surgical Journal.*

MISTLETOE AS AN OXYTOXIC.—About three years ago I was informed by my friend, Dr. W. H. Long, of Louisville, of the superior properties of viscum album (mistletoe) as an oxytoxic. I then determined at the first opportunity to try its merits. During last fall I had some leaves of the viscum album gathered, and I made an infusion. Not knowing the exact proportions, I made it according to the

general rule of infusions, two ounces to the pint; but not waiting for the leaves to dry, I used them green, and doubled the quantity.

Case 1.—November, 1877, Mrs. McC., mult., had advanced to the second stage of labor, and there remained for several hours. Upon close examination I concluded that all that was wanting was an efficient action of the uterus. Having an eight-ounce bottle of the infusion in my pocket, I gave about one-third of it, and in twenty minutes I gave her another third; and in ten minutes more regular clonic contractions of the uterus began, and during the hour she was safely delivered of both infant and placenta.

Case 2.—December, 1877. Mrs. P., mult., advanced to second stage of labor, according to the "granny's" statement, from noon till after dark, when I was sent for. After learning the facts in the case, I gave Mrs. P. four ounces of the infusion, and very efficient uterine contractions followed in twenty minutes. The pains recurred about every three or four minutes; yet, after an hour, seemingly no impression had been made upon the child's head. Upon closer examination I found an occipito-posterior position which had missed the usual rotation of the occiput under the pubic arch. The occipito-mental diameter corresponded with the antero-posterior diameter of the cavity. The head seemed to be locked in this position, which prevented flexion, notwithstanding the continued and powerful contractions of the uterus. I introduced a pair of perineal forceps, and with a slight traction and flexion dislodged the head from what seemed to be its locked position. The next pain was so powerful that the child and secundines were delivered at once. So, notwithstanding the delay after the dose of viscum, we see that it was not for want of action of the drug on the uterus.

Case 3.—January, 1878, Mrs. C., having suffered from menorrhagia for eight months, applied to me for relief. She stated that her menses recurred about every eighteen or twenty days, and that the discharge was very profuse during the first two days; said she was greatly weakened from the loss of so much blood; looked pale. I gave her

one-ounce doses of the infusion, to be taken just before and during the next recurrence, and to continue it when her menses recurred out of time or too profusely. She reported herself a few weeks since as regular, and feeling much improved.

My short experience with the parasite is, that it acts more promptly and more decidedly as an oxytoxic than ergot. In the few cases that I have used it I have had none of the troublesome "after-pains" that are often observed when ergot has been given.

In administering ergot I never know whether to look for its oxytoxic effects or not, it is so uncertain; yet this may be the fault of the manufacturer. Be that as it may, I, for one, will herald the introduction of the new oxytoxic (*viscum album*) into our materia medica with much satisfaction, giving all due honors to its introducer, our friend, Dr. W. H. Long.—*Louisville Medical News*.

A CASE OF VICARIOUS MENSTRUATION.—The patient is a laundress; she was born in New Hampshire, is twenty-four years old and single. Her catamenia began at nine, were characterized by moderate molimina, considerable flow, recurred regularly every four weeks, and continued three days.

During the summers of 1874 and 1875, it was her custom to spend one hour daily in a public bath, regardless of her catamenia. One day after the usual bath her menstrual flow suddenly and prematurely ceased; at the same time she was attacked with vertigo, distressing pains in the stomach and bowels, and palpitation of the heart. These symptoms, however, soon passed away. In four weeks she began to have lassitude, an inordinate craving for food, lancinating pains throughout the abdomen, with more or less tormina, followed by a sense of fullness of the stomach, pains extending from the temples to the vertex, fetid breath, bad taste, and nausea. The latter symptom was quickly followed by her vomiting about a pint of dark grumous blood and ingesta. After the vomiting there was considerable prostration and febrile movement, which, with the earlier symptoms, gradually abated, and

in three days left her "as well as ever." For two years these attacks of hæmatemesis continued to recur about the last of every month, preceded and followed by substantially the same train of symptoms that characterized the first. There was generally a slight amount of dysuria, which, however, disappeared with the other symptoms. The alvine dejections were normal, so far as could be ascertained.

There were no hereditary tendencies to disease, neither had the patient ever been seriously ill. When first seen by the reporter, she complained of fleeting pains in the chest, poor appetite, and malaise, but her general appearance was good.

An examination of the heart revealed nothing remarkable; neither did percussion nor auscultation of the chest elicit any but normal sounds.

There was no tumor or undue tenderness detected in the epigastrium.

The patient was given tonic treatment, and soon after left the institution, but returned a few weeks since, and now reports that seven months ago, while taking wine and iron, her catamenia returned, and have since recurred regularly, unaccompanied by any abnormal symptom. A physical examination resulted as before. She is in excellent health, and weighs thirty pounds more than she did one year ago.—*Boston Medical and Surgical Journal*.

RAPID DILATATION OF THE FEMALE URETHRA FOR THE RELIEF OF VESICAL IRRITABILITY.—Mrs. L., a married laundress, aged 31 years, has been under treatment for some months for right latero-flexion, associated with chronic endometritis consequent upon subinvolution following abortion in the third month. Three months ago acute cystitis suddenly developed, characterized by alarming prostration, intense burning pain on micturition, and the passage of bloody and muco-purulent urine. The acute symptoms having subsided under treatment, the usual means of relief were tried in vain to control the chronic irritability that remained. By chemical and microscopical examination, numerous pus and epithelial cells, and

some albumen were found at various times in the urine. Otherwise it was normal. Topical and constitutional measures conferred no relief whatever. Nausea and vomiting were frequent and distressing symptoms. Constipation of the most obstinate character had existed for months. The uterine trouble had been undergoing satisfactory improvement previous to the development of cystitis, but since that occurrence the failure of the patient's strength, and the intense pain caused by the introduction of the speculum, interdicted the application of the remedies adapted to the relief of the former. Her worst symptoms seem to have proceeded from the vesical irritability. Every hour during the night a spirt of urine, amounting to a teaspoonful, would constitute her most serious trouble. Again, suffering until the pent-up urine was voided through the catheter. The passage of a soft rubber catheter always gave severe pain.

Fully convinced of the inutility of persisting in the ordinary modes of treatment, I determined upon performing rapid dilatation of the urethra as forming the only hope of relief. Accordingly, on February 28th, having evacuated the bladder and brought the patient under the influence of ether, I cautiously introduced into the urethra the blades of a narrow pair of sequester forceps, and gently dilated the passage until it would admit my little finger. This dilatation was increased to an extent which admitted of the introduction with ease of my thumb or forefinger. Urine ran freely from the bladder during the dilatation, notwithstanding the previous catheterization. The mucous membrane of the bladder communicated to the touch a soft, velvety feel, and seemed perfectly free from disease. The cavity was normal in size. Hemorrhage was slight.

March 1st.—Passed a restless night. Suffered excruciating pain in the vesical neck after each act of micturition. Urine was passed frequently during the night without her control. Morphia failed to ease her entirely. This morning she says she feels somewhat better—makes water with less pain. Tongue dry, and covered with a brownish coat. Pulse 115. Temperature 102° F. To have quinine

and iron, with generous diet. Bromide of potassium at night.

2d.—Harrassed with incessant vomiting. Pain in bowels. Pulse extremely feeble. Tongue dry. Micturition free, but accompanied with burning pain. No vesical tenesmus. Complains of abdominal pain. Ordered a blister to abdomen, to remain five hours, and be replaced with a hot poultice. Bismuth, gr. v, lactopeptine, gr. x, as required to control vomiting.

3d.—Blister relieved her very much. Vomiting and pain returned towards evening. To have morphia and potass. brom.

5th.—Bladder a little worse; retains urine.

6th.—From this date the vesical trouble gradually augmented. Nitrate of silver topically; irrigation followed by injections of acetate of lead and morphia; suppositories—in short, the customary modes of treatment failed utterly to give the first shadow of relief. Evacuation of urine was performed every hour or two, to the amount of about a drachm each time. Finally, retention became established, and with it great tenesmus and suffering, as before.

26th.—No therapeutic resource being left which promised any useful purpose, I determined again to dilate, and this time carry the stretching to the extent practiced by Teale. An anæsthetic having been administered, I dilated as before, introduced the right index finger, crowding it gradually up, and then withdrawing, introduced the indices of both hands, stretching the urethra and vesical neck to their utmost capacity consistent with safety, with a view to completely overcome the spasm of the sphincter, and render it powerless to produce subsequent closure. Some pain was experienced after recovery from the anæsthetic, but was slight compared with that following the previous operation. Immediate relief was obtained from the more urgent symptoms, the only symptom complained of after the operation being a slight burning sensation accompanying each act of micturition. This gradually became less, and her progress has been most gratifying.

At the present date, April 14th, the vesical irritability

has entirely disappeared, and she states that her bladder is all right now, and the relief she has experienced cannot be expressed in words.

I regard this case as furnishing a crucial test of the efficacy of Teale's operation for the relief of the very distressing symptoms of irritable bladder. From previous recorded experience it appears that this condition, complicating uterine versions or flexions, has undergone little or no improvement from urethral dilatation, and in the present case I confess that I regarded the operation as holding out but slight promise of cure, and had recourse to it only as a dernier resort, after the complete failure of all other measures. It is possible that failure in some cases has been due to incomplete dilatation, as it was in my case after the first operation. It therefore seems proper to practice extreme dilatation before abandoning the operation as useless. The fullest distention consistent with safety appears to be reached when the channel has been enlarged to about an inch in diameter.—*N. Y. Med. Record.*

THE VOMITING OF PREGNANCY AND ITS TREATMENT.—Although a secondary or reflex manifestation, the vomiting of pregnancy is of such frequent occurrence, and often obstinate persistence, as to have acquired a name and a place in medical literature.

We know that pregnancy, in perhaps a large majority of cases, if, indeed, there is an exception, gives rise to morbid conditions of some organ or organs, continuing during a part, and sometimes the whole term, of gestation. There is a susceptibility of the system to excitement during pregnancy that does not exist at other periods, owing, no doubt, to the intimate connexion of the organs of generation with the cerebro-spinal and the ganglionic system of nerves. The functions of the brain, those of respiration, circulation, secretion, digestion, and nutrition, may one or all be disturbed by conception and development of a new life within the old.

The stomach is usually the first organ to sympathize, and it is generally independent of any noticeable change of temperature or disturbance of circulation. This sym-

pathy of the stomach is of various degrees of intensity, from a fastidious taste and appetite to nausea and vomiting. The period after, and the length of time it continues, vary in different individuals as well as in the same subject in succeeding pregnancies. While in some persons the nausea, or morning sickness, as it is sometimes called, commences almost immediately after conception, with the majority it does not begin until from the third to the fourth or sixth week of gestation, and usually terminates at about the fourth month. It sometimes continues more or less severe until the termination of gestation. There are others in whom this reflex disturbance is not severe until the fifth, sixth, or seventh month of utero-gestation, and yet others who are free from this sickness throughout the whole period of pregnancy.

The violence and frequency of the vomiting are sometimes so intense and persistent as to destroy the life of the patient. Cases have been reported where, from the inability of the stomach to retain the least particle of nourishment, death has resulted from starvation. Dr. Marshall Hall speaks of a case which occurred under his notice, but not in his care, in which the vomiting continued in spite of every remedy which intelligence could suggest, and which terminated fatally at the seventh month. The reported cases are numerous where death was averted either by spontaneous or induced labor.

A case is reported in *The Lancet* for 1838, of a lady who soon after her marriage ceased to menstruate, and became affected with morning sickness, which soon became so violent that nothing could be retained by the stomach. In this case, the report says, "the disorder was strangely attributed to disease of the pylorus. The sickness and extreme emaciation were the only symptoms present; after death no morbid appearances were found in any part of the body; a foetus about four months old was in the uterus." This patient, it would seem from the foregoing statement, was literally starved to death. Dr. Davis, in his "Obstetric Medicine," relates similar cases. Dr. Dance, of Paris, reports a case that "during the second month after the arrest of the catamenia, was harrassed with almost con-

stant vomiting, rejecting everything she took, whether liquid or solid, rapid emaciation following. Tongue clean and moist, no febrile symptoms present, no tenderness of the epigastrium on pressure, sleep interrupted, habitual constipation, vomiting both night and day. The matter ejected was of a greenish or limpid character, and small in quantity. The patient did not think herself pregnant, and there was no enlargement of the hypogastric region. All remedial measures were used without benefit; ice internally and externally, leeches, blisters, anti-emetic draughts, opium internally and externally, and twenty other remedies, without having the slightest effect in checking the vomiting. Emaciation in this patient by the end of May had made great progress; and now the hypogastrium began to be prominent, and pregnancy was not until then ascertained to exist, which was fully four and a half months. On the 2d of June she died."

I have quoted thus fully from this report, because it furnishes a very good type of the inveterate cases of vomiting during pregnancy. In this case the patient suffered almost from the beginning, vomiting continuing with increasing severity until death; almost five months pregnant. The report upon the *post mortem* examination says: "No lesion could be detected in the stomach; except a slight reddish tint of the mucous lining, the whole intestinal tube was sound. The uterus rose a few inches above the pubes, and its parietes were preternaturally soft and flabby, but without any other appreciable change of structure. The membranes of the fœtus were transparent throughout, but between these and the uterus were false membranes forming a layer some lines in thickness, exactly resembling those found between the pleura after inflammation; the same was found between the placenta and uterus, but more of a purulent character."

Another case, reported by M. Dance, did not reveal any products of inflammation between the uterus and membranes. Was not the uterine inflammation in the first case rather in consequence of, than the cause of, the violent and protracted vomiting? Would not inflammation producing such grave symptoms end in abortion or death before the expiration of four and a half months?

Pathologists (many, at least) attribute this reflex manifestation to the distension and development of the dense uterine structure after conception.

Dr. Graily Hewitt, however, in a paper read before the London Obstetrical Society in 1872, attributes the sickness and vomiting in pregnancy, in a majority of cases, to the irritation caused by flexion of the uterus, either ante or retro-flexion. Owing to the flexion the uterine fibres and nerves at that point are compressed, and this compression is increased up to a certain period, by the constantly increasing development of the gravid uterus; and when pregnancy advances to the fourth month or more, the flexion is more or less corrected by the natural rising of the uterus from the pelvic cavity, after which, he says, the sickness and vomiting generally subside. He believes this to be the "almost universal cause of vomiting in pregnancy." That the tissues of the uterus resist expansion is, he says, unquestionably the case, "but this is not enough, apart from the conjoined flexion of the organ, to account for more than a small number of cases. Dr. Hewitt says he has not had an opportunity of examining cases of vomiting in pregnancy after the fourth month, and is not sure how often vomiting is noticed in this degree after that period, and therefore cannot pronounce any opinion derived from actual observation as to the state of the uterus under such circumstances. He, however, admits that "there are probably a small number of cases in which the vomiting persists even after the flexion has been remedied by the gradual development of the gravid uterus." So far, he says, "as the pathology of this affection is concerned, the ordinary cases, where the vomiting is very slight, and hardly calls for medical attention, is due (in his opinion) to a temporary evanescent flexion of the uterus." M. Brian attributes the reflex irritation to anteversion or retroversion of the uterus. It is probable that these abnormal positions of the gravid uterus may aggravate the sickness, which is almost a concomitant of pregnancy, but are not the cause of it. Conception, perhaps, rarely occurs without being followed sooner or later by a sympathetic manifestation, of some kind in some organ; no doubt, in many

persons in so slight a degree as to escape special notice, but in a large majority sympathetic or reflex phenomena of various kinds, such as an undefinable sinking sensation about the epigastrium, a slight fullness of the head, dizziness, palpitation of the heart, oppression in breathing, loathing of food, heartburn, eructation (sometimes acid, sometimes not), nausea, vomiting, constipation, diuresis, headache, toothache, etc. And there are some women who know to a surety, by being troubled with some one or more of these manifestations, that they are pregnant. Disturbance of the stomach is, however, the most frequent reflex affliction of pregnancy. Several members of the London Obstetrical Society took exception to Dr. Hewitt's paper as to the cause of vomiting stated therein, saying they had known flexion and pregnancy coexisting without sickness, and, on the other hand, had frequently met with nausea and vomiting without flexion.

As to the treatment, we know how unsatisfactory have been our efforts to relieve this affection by the exhibition of drugs. I do not allude to the mild cases which require but little or no attention, but the excessive and persistent cases of vomiting, where the patient, in spite of all remedies, continues to grow, day by day, more feeble and emaciated. It is wonderful, the number of remedies which have been suggested by different authors and contributors. Purgatives, emetics, anti-emetics, vegetable and mineral acids, alkalies and antacids of various kinds, anti-spasmodics, narcotics of every variety, internally, externally, and hypodermically administered; tincture of iodine in minute doses, oxalate of cerium, effervescent nitrate of cerium, aconite, various effervescing draughts, bismuth, strychnia, etc., to end with varying success, sometimes with no success at all. Believing that the vomiting of pregnancy is a reflex phenomenon, is it not strange that nearly all our efforts to relieve it have been directed to the stomach, the helpless sufferer from the fault of another organ? Why not direct our curative measures directly to the source of mischief? Impressed with the correctness of this idea, I decided to put it in practice in the first case that might come under my care.

It has been now six years since my first opportunity of testing this idea, and within that time I have treated five cases, and in each case a very gratifying result ensued. I thought by exciting an irritation or superficial inflammation of the os and cervix uteri, the reflex nervous phenomena would be concentrated at the point of irritation, and thereby relieve the stomach.

To the first patient I applied the solid nitrate of silver to the os uteri only. The benefit was very noticeable within twenty-four hours. Being somewhat apprehensive, I applied the caustic rather sparingly, and in a few days applied it again, obtaining still greater relief. I used it a third time, but suspect the third application was really unnecessary. The patient remained free from sickness or vomiting to the end of gestation. To the second case the caustic was applied twice only. Improvement followed the first, and complete relief the second application. The third patient required but one application; it was used more freely than in the preceding cases, and applied to the os and a portion of the cervix uteri. The fourth patient needed but one application, and this was one of the most harrassing and persistent cases of vomiting that ever came under my care. The stomach rejected everything taken into it, and the patient grew feeble and became so emaciated that she was scarcely able to leave her bed. The caustic in this case was very freely applied to the os and vaginal cervix. The relief obtained was beyond my expectation, for it was almost immediate. She vomited only twice or thrice in the thirty-six hours following, and no more after that time. She was able to retain food; assimilation was good, and she gained rapidly in health, strength and flesh. The fifth case was one in which the vomiting was not so frequent, but quite as persistent. In this case, in addition to the vomiting, the abdomen was quite tender—as I supposed, from the violent retching. The caustic in this case was applied twice before entire relief was obtained.

In all these cases, before resorting to the caustic, I had faithfully tried, and for some time, remedies which are usually resorted to in such cases, without any benefit what-

ever in the fourth and fifth cases and only temporary improvement in the others. These were all cases of first pregnancy, except the second one. In the first and second there was slight erosion of the mucous lining around the os; in the others none whatever, all three being perfectly healthy in appearance.

Notes of a Case, by Dr. Marion Sims.—I had the good fortune to meet Dr. Jones, of Chicago, last June, when he incidentally related to me his experience in the treatment of the vomiting of pregnancy. I thought the matter of so much importance that I begged him to write it out for publication. Accordingly he sent me the foregoing paper, which I received just as I was leaving for home, and not having time to arrange for its publication there, I now send it to the *Lancet*. I am not in the way of seeing much of this affection, but a case came under my observation a few days ago so strongly confirmatory of Dr. Jones' views, that I take the liberty of appending it to his paper.

Madame de C—, aged twenty-two, married at sixteen, was a very delicate child, but is now a tall, handsome woman, weighing 175 pounds. She has one child, four years and a half old. During her pregnancy she suffered from nausea for two months or more, but not enough to cause anxiety about herself, and she was safely delivered at the full term. She did not nurse the child, and conception occurred again a year after its birth. Nausea began with conception, and continued unabated for two months, when she miscarried. This was at Arcachod, in 1874. In 1875 she conceived again. Conception was immediately followed by nausea, which persisted in spite of the usual remedies, and she miscarried again at the end of the second month. This was at Havre. In 1876 she miscarried a third time in New York, at the end of two months from the prostration of nausea, which began, as before, at the time of conception. She had the ablest counsel in New York—namely, Dr. Wm. Jones, Dr. Thos. F. Cock, and Professor Barker. Her life was in great danger at each of these miscarriages; and the distinguished accoucheur, Professor Fordyce Barker, told her she would hardly survive another such trial as she had just passed through.

I saw Madame de C—— on Oct. 24, 1877. She gave me the history of her miscarriages, and said she feared she was pregnant again. She had just missed her period, and for the last ten days had felt such nausea and disgust for food that she was sure she was pregnant. I gave her some bismuth to take during the day and some bromide of sodium at night. She returned on the 29th, complaining more than ever of nausea, and I prescribed oxalate of cerium. Four days after this Madame de C—— sent for me. She had been confined to her bed for four days, so nauseated that she could not get up, and could not take any nourishment whatever. She did not vomit, but she was completely prostrated by the constant nausea and starvation. She was so changed in appearance since I last saw her that I thought there must be something more the matter with her than the mere nausea of pregnancy. Was it malarial? She had just moved into a new house. Her little boy had been complaining for several days, and her maid-servant had some malarial symptoms requiring quinine. Madame de C—— had lived in malarial regions in America, and she imagined herself worse on alternate days. Thinking there might be a malarial element in her case, I ventured to give her ten grains of quinine in two doses, which unfortunately produced both vomiting and purging, and greatly augmented her prostration. She was now worse than ever. She had had no sleep for two or three nights, and was altogether in a most miserable plight. So I concluded to quiet both stomach and nervous system by bromides, and gave her 120 grains between 5 P.M. and 2 A.M. But she did not sleep, and her condition was now such as to alarm the family. They were evidently as much dissatisfied with my empirical treatment as I was myself. Beginning, at last, to look upon the case as one purely of nausea from pregnancy, I determined to try local treatment.

There was right lateral antifixion. Both lips of the os tincæ were granular, and covered with a profuse glutinous leucorrhœal secretion. It was a case in which Dr. Graily Hewitt's pessary treatment might have been tried, or Dr. Copeman's plan of forcible dilatation of the os and

cervix. The os had been considerably lacerated bilaterally during her labor. The anterior lip was everted as well as eroded, and the finger could easily have been carried into the canal. But having previously made up my mind to try Dr. Jones' method, I cleared away the leucorrhœal discharge, and applied a solution of the nitrate of silver (two drachms to one ounce) freely over the whole surface of the cervix till it was well whitened, and I stopped all other medication. On the next day I found Madame de C—— sitting up in bed, and as bright and cheerful as possible. The change in her voice and general appearance was marvelous. She had had a good night's sleep, the first for a week. She had taken a liberal breakfast, the first good meal for a fortnight, and altogether she felt herself a new being compared with what she was the day before. A show of blood followed the application of the nitrate of silver, and she began to hope that it was a real menstruation. At the end of five or six days there was some nausea, but not at all distressing, and I penciled the neck of the womb with pure carbolic acid till it was completely enveloped in a whitish film. On the next day she said she was perfectly well. On Nov. 19 she came to see me, saying that family affairs called her to New York, and she wished to have the carbolic acid applied again as a precautionary measure. She had occasional nausea, but it amounted to nothing. It did not prevent her from sleeping, and did not prevent her from eating. She had never felt so well before during the first two months of any of her pregnancies.

If Dr. Jones' treatment acts as promptly in all other cases as it did in mine, the profession will certainly feel grateful to him for it.

Editorial.

CRIMINAL ABORTION.—The destruction of human life wantonly has been looked upon in all ages and by all nations and races of people as a grievous crime. Vitality is given the ovum by impregnation, and separate, distinct life from that of the mother, in a new being, commences with conception. Arbitrary and wilful destruction at certain periods of human life thus begun, is marked by different degrees of moral and legal turpitude, according to the age of the new being. Distinct terms are also applied to the killing at these various stages of life. Destruction of life at any time from conception to the full period of utero-gestation is in legal medicine called abortion. At the time of birth and for a few days after, it is called infanticide; and at all subsequent periods of life the term murder is applied. In obstetrics the term abortion, strictly speaking, is the discharge of the ovum before the middle of the fourth month, or time of quickening. After this, to the latter part of the sixth month, or period of viability, the discharge is called miscarriage; and premature delivery from this time to the full term of pregnancy. Conventionalities in certain circles of society fix a standard of moral rules to suit their convenience and pleasure. One of these is that there is no crime in destroying the ovum before the fifth month of pregnancy. This rule is predicated upon the cherished idea that life does not exist till the period of quickening. The word *abortion* does not appear in the technicalities of these moralists, but “produce the menses” and “prevent conception” are the usual terms by which their wishes are made known. Sometimes pregnant females, preferring the pleasures of social society to the duties of domestic life, and apparently ignorant of their condition, apply to physicians for a prescription to restore suppressed menstruation. This is done under the prevailing opinion that whatever will restore suppressed menses will produce abortion—knowing that honorable physicians will not consent to the gratifi-

cation of their real desire. This plan is so *thin*, and has so often failed to accomplish the object, that it is now seldom resorted to. The rule of the day is to "*prevent conception*," and the sympathy of physicians is being inlisted for the feeble female, the over-prolific female, the female who suffered so severely at her last confinement and the dashing female who cannot bear the idea of burying herself to the festivities of social society. The wife and the husband implore the doctor for means to prevent conception. A practitioner is touched by the appeal, and casts around for a plan by which he can conscientiously accomplish their desire, without moral impropriety or physical injury to the parties, but all are objectionable. His conscientious duty as a responsible and honorable member of society and of a noble profession compels him to say, let nature take her course—the fiat has been announced, "in pain shalt thou bring forth." Another, less scrupulous, and more inclined to please and receive patronage, can see no impropriety in *preventing life*. In the selection of a plan he is not inclined to adopt some of the more disgusting practices advised, and finally concludes to give ergot before each menstrual period. He manages to satisfy himself and his patient that no wrong can be made of this—that no cessation has yet occurred, nor other evidence of pregnancy, and if, by giving the remedy, all signs should be prevented, then there can be no palpable violation.

This discussion must, however, be confined to the doctor and his patient. The subject will not bear medical criticism. When describing the result of his practice to another physician, he must necessarily confess that, like the man who shot in a way to kill if the object was a deer, and miss if it was a calf, he intended to kill the child if it had been formed, and miss doing anything at all if conception had not taken place. The plan amounts to a kind of trap-setting to catch and kill the new being if it comes in the way. The old idea of dating the commencement of human life at the period of quickening has given way to enlightened views on this subject, and however desirous parents may be to destroy their own offspring, outspoken public opinion makes them hesitate to commit the foul deed after unmistakable evidences of pregnancy are known to others.

Arbitrary, criminal abortion is the crying sin of this country, and is one of the most atrocious evils to which our people are addicted. It commenced long ago in all grades of American society. The slave of Mississippi and the lady of Massachusetts had their abortiva, to which they resorted, when threatened with cares they were unwilling to assume. Those not versed in the use of appropriate remedies, and had the means to do so, employed professional secret abortionists, whom the demand had created out of low quacks and dishonorable members of the medical profession. In the practice thus instituted, the destruction of life and health does not stop with the intended victim. Hundreds of mothers have fallen under the poison used against their children; and often when life is spared, permanent ill health has been the result. Twenty years ago the Southern slave-holder, the Northern clergy, the statesman and morality were shocked at the progress of this evil. Abortionists were prosecuted, ladies censured, and strict watch kept over the female slave. Notwithstanding this, under various phases, the crime of abortion has continued, and invades every grade of society.

Professional abortionists publish ingenious advertisements, in which remedies, ostensibly, for the cure of various disorders are proposed, but with the significant caution *that pregnant females should not take them*. Nostrum emmenagogues are also offered the public, and lest the abortive effect of such preparation may not be generally understood, it is indirectly made known by a caution to pregnant females against their use.

In this war of Americans against their progeny, we had hoped that honorable members of the medical profession would not do worse than occupy neutral ground. It is certainly bad enough to witness unmoved this embryotic slaughter, but when in any way we allow ourselves to give aid and comfort to the enemies of new beings, we become lost to humanity, and prostitute a noble calling to the encouragement of legal, moral and religious crime.

It is generally understood that the profession of medicine has adopted a high moral standard on this subject,

and whatever a respectable member sanctions the public are likely to consider unobjectionable. Hence the importance of maintaining a high moral standard on this subject by contemptuous refusal to aid in such diabolical schemes, and by holding up to professional indignation a member who persists in this course.

At the annual meeting of the American Microscopical Society of the City of New York, held Tuesday evening, March 26th, 1878, the following officers were elected for the ensuing year: President, John B. Rich, M.D., 1 West 38th Street, N. Y.; Vice-President, Wm. H. Atkinson, M.D., 41 East 9th Street, N. Y.; Secretary, O. G. Mason, Bellevue Hospital, N. Y.; Treasurer, T. d'Oremieulx, 7 Winthrop Place, N. Y.; Curator, John Frey, Bellevue Hospital, N. Y.

AMERICAN MEDICAL ASSOCIATION.—At the recent meeting of the American Medical Association, held at Buffalo, N. Y., the following officers were elected for the ensuing year: Theophilus Parvin, President; W. F. Westmoreland, A. J. Fuller, John Morris and John H. Murphy, Vice-Presidents.

The Association decided unanimously to hold its next annual meeting in Atlanta, Ga., beginning on the first Monday in May next.

The honor conferred upon Atlanta and her distinguished citizen, Dr. W. F. Westmoreland, is highly appreciated, and she will be glad to welcome the Association to her midst.

EUROPEAN CORRESPONDENCE.

LONDON, April 26, 1878.

Editor Atlanta Medical and Surgical Journal:

A winter passed among the continental universities leads me to enquire the motive which prompts so many American students to rush over the continent and rush home again with the idea of having studied at a foreign school. Is it profit, pleasure, or puff? Is it a fact that the scientific education offered to the American student (I do not speak of one school, but of all together) in the first-class American schools is inferior to that afforded on the continent? Now, I hazard the assertion that it is quite equal; I do not speak of the many minor medical schools scattered broadcast over the land—all useful, perhaps, in their way, but which lack the wealth necessary to acquire first-rate apparatus and appliances, and to pay first-class teachers or professors—but I speak of those larger schools, whose means are ample for all the professors required. The fact is that the education is offered, but as a general rule the students will not accept it. An American student graduates in two years. (The day is gone by, I hope, when it could be done in seven months, as I have known it to occur.) Will he then be satisfied to continue for three more years to occupy the student's bench, and make the term of his tutelage equal to that of his German brothers? One in a thousand might, but even that one is very doubtful. In Germany the student goes, if he wishes, from school to school, studying at each that particular subject which he finds may be best prepared to suit his mental appetite; and as he may learn physiology at one school, anatomy at a second, surgery at a third, practice at a fourth, etc., of course the sum total of the lectures must amount to the legal requirements, but the student is free to take them when he pleases, and he is not hampered with the regulation as with us, that a whole course of eight or ten branches, as the case may be, must be taken in a particular school, some of whose professors, although first-rate men in their way, might not suit, in their manner of teaching, the mental requirements of the student in question.

The evils of our system of medical education can be corrected; nay, they will, they must be corrected later, doubtless, by legislative enactments, but for the present we must trust to the good sense of the students themselves and to the moral influence of the profession to gradually awaken the coming generation to the necessity for higher educational requirements.

But it must not be imagined, because I thus criticise our own institutions, that our professors have not kept up pretty well with our attainments in the arts and sciences when compared with the old world. In this, the beginning of the second century of national existence, our system is in a much less chaotic condition than it was in England or on the Continent fifty years ago, with governments many centuries old.

There is yet another reason why the majority of our students can derive but little advantage from a short attendance at the continental universities, and that is the question of language. Of those going abroad, very, very few know enough of the language to understand a scientific lecture, although their knowledge may be ample for the requirements of travel. Indeed, during the past winter I have spoken with several American graduates, who frankly confessed that they could not follow the lectures, although in the practical branches they could get along very well. Yet if there is one thing more than another in which the genius of American medicine will excel, it will be in the more practical departments. Now, strange as it may appear, many of these men, after spending a few months on the continent, were prepared to return home, entirely ignoring and passing by the English school, where, if any place out of America, they might derive most advantage from their opportunities on account of the identity of language.

I think, then, that, with rare exceptions, it is not profit in the sense of educational advancement which the average American medical student derives from a winter on the Continent.

The novelty of the pleasures of a continental life has for a young man many allurements during the first few

months of his residence there, and few can bring the same patient, quiet industry to bear on their studies which they would do at home; and about the time this novelty begins to wear off is about the time they turn their faces homeward—professionally, perhaps, rather worse than better for their foreign trip.

But now we come to the whole secret of the young man's trip abroad—puff. It is, in fact, "a good send-off." "He has spent a winter in Paris or Vienna" will make a long credit column in his professional account, no matter how that winter was occupied. The absence of medical schools in the American colonies drove the students to Europe for their education, and the necessities of the early colonists began the habit of their descendants and developed into the present day, when the real necessity has long since disappeared.

I have spoken of the real utility of the many smaller medical schools scattered over the American continent, and here I would indicate what I believe is their true use. Very many of these schools cannot pretend to offer to the student a scientific education of the same high order as in the larger ones. If Prof. Ludwig requires a lecture every day for a whole winter and a thousand vivisections to teach physiology, it cannot be supposed for a moment that the same can be done in one-fourth the number of lectures and a dozen experiments. But no matter when or how, let the student but have a thorough scientific knowledge, and then a session passed in the medical school nearest to the scene of his future labor—not farthest from it, as at present—will be the best possible introduction to the practical duties of his profession. A student expecting to practice among malarial districts may expect to meet with many perplexities if he has studied only among typhoid diseases. Again, the habits of the people among whom he is to practice are of great importance, and these can be best studied in local medical schools.

May I say that this is no ideal picture, but the record of facts which have come under my own observation? May I then record as the opinion of (I hope) a candid and unbiassed person, that America can educate physicians

for her own people better than foreign nations can? Of surgery I say nothing, as, being more mechanical, much depends on the ingenuity and boldness of the individual, and here I think America is well in the foreground.

It must not be thought, however, that I do not appreciate fully the advantages to be derived from a visit to foreign schools, but who are the men who will derive most advantages from such visit? I take it to be the men who are already masters in their business, or who, having been forced or drifted into practice of a specialty, are able to compare analyses and estimate the value of their observations abroad.

All this may appear out of place, but it comes from a desire that the American profession should learn to estimate things at their proper value, and cease to worship at foreign shrines when they have scientific altars quite as magnificent at their own doors.

In all the large European cities the same classes of diseases appear to prevail, and but for the differences of race and language, a physician could easily mistake a London clime for one at Paris, Berlin or Vienna, or *vice versa*; and if I include our large Northern cities, I will not be much mistaken.

Insufficient ventilation, scanty food, darkness, dampness and over-crowding produce the same results in one place as in another, when climatic influences are similar, and there is not sufficient topographic or atmospheric differences between these several capitals to make a visible change in the constituent elements of a clinic, although exact statistics might show a considerable distinction. Nor will so much novelty of treatment, *reliable treatment*, be met with as one might suppose. In the present advanced state of medical journalism medical discoveries become common property almost as quickly as steam can carry them throughout the world.

With many electricians I find the Daniel's battery still in high favor for office purposes, where size and weight are not matters of vital importance, and many modifications are in use to get rid of its inconveniencies, but I think the most convenient I have seen is that in which

the negative plate and crystal being at the bottom of a jar, a thick layer of wet clay is put on them and then the zinc plate. The use of the clay is, I understand, original with Prof. Hughes, the inventor of the microphone, which magnifies all sounds transmissible by the telephone, so that sounds otherwise inaudible become startlingly loud.

The microphone has been constructed by Prof. Hughes of various substances and in many forms, but the substance he at present prefers is charcoal impregnated with metal, as for example, willow charcoal, which has been heated in a closed sheet iron tube to a white heat and allowed to cool slowly, or gas carbon heated to redness in a closed crucible and then plunged into cold mercury. Both of these are employed by the inventor for different forms of the apparatus, but the most portable form being made with the ferrated charcoal, I will confine my remarks to that.

Make three or four little bricks of this ferrated charcoal about 3-16 or $\frac{1}{4}$ inch square and about $\frac{1}{2}$ inch long, pile the bricks one upon the other; attach to the upper and lower brick, wires for completing a galvanic circuit, and the apparatus is complete—the rest of the arrangement being only for the purpose of maintaining these pieces of charcoal in their relative position certainly, but not rigidly. For this purpose the upper and lower bricks are cemented to two bits of wood, which are hinged together, while the intervening pieces are attached to the lower one by a strip of paper gummed to one side. A gentle spring draws the pieces of wood together and insures contact between the pieces of charcoal. This is the sender or transmitter. The receiver is a Bell's telephone, which is connected with the sender by one small wire. A small galvanic battery is placed in connection with the other wire of the sender and the second terminal of the telephone. The strength of this battery is governed by the magnetic strength of the telephone, from 3 to 6 Daniel's cells, exposing about two square inches of zinc each, will usually be sufficient. A galvanometer may be placed in the circuit for the purpose of inspection if desired. It appears that a number of senders and receivers may be

connected in the same line and a variety of sounds sent to and fro without interfering one with the other.

In using this arrangement the sender is placed so as to receive the sound to be transmitted, which instantly becomes audible at the receiver (telephone). For example, if placed on a table and the table scratched or tapped lightly, or even brushed lightly with a feather or camel's hair pencil, the sound can be distinctly heard at the other end of the line. Even a fly walking in a match-box with which the sender was in contact could be plainly heard. In the same way a whispered conversation can be carried on, but for this purpose the inventor prefers to enclose the receiver in a little box, so as to cut off, as much as possible, disturbing noises.

I have spoken of "sounds transmitted by the telephone." I have been experimenting a good deal with the telephone in consultation, and although I have no doubt there is a great future before this system of causing waves of sound to produce changes of electric currents, still, as a caution to enthusiasts, I would mention that there are *whole classes of sounds* to which it is *absolutely insensitive*, even when aided by the *microphone*. In other words, no arrangement has yet been found equaling in sensitiveness the human ear. For example, hissing and blowing sounds produce no deflection of the needle of the galvanometer; nor could I find any effect produced by the friction of mucous membranes, as, for instance, the rubbing of the tongue against the roof of the mouth. This may be well illustrated by pronouncing into the instrument the letters of the alphabet, when it will be found that *r* causes the greatest deflection of the needle; then *ah*, *i*, *o*, *u*, etc.—in fact, those sounds which are the results of vibrations—while consonants, as a rule, are only heard by the vowels associated with them, so that if a consonant is disassociated from its accompanying vowel it is not transmitted by the microphone or telephone; nor will it be recorded by the phonograph. In other words, such sounds will not excite vibrations in any of the substances at present employed for the purposes of transmission or record. Hence, as an example, if a prolonged *s*, or *f*, or *v*, etc., is pronounced

into the microphone no deflection of the needle takes place for the latter or consonantal part of the sound. It will be seen, therefore, that further improvements must be made before these instruments become available as reliable aid to the auscultator. I hope I have succeeded in making my views on this subject understood. I have not aimed at scientific accuracy, but only to place my observations broadly before my medical brethren.

While on this subject, I would like to draw attention to the value of antimony as a substitute for carbon in certain forms of galvanic batteries; those, for example, in which sulphuric acid or chromic acid is the exciting fluid. I have used it, I think, about five years. It has the advantage of being cheap. The broken plates can be recast. It does not disintegrate; or flake off. Moreover, when plunged into the fluid it commences to act immediately. Although perhaps not quite so good a negative as carbon, its superior conductivity and other advantages may make it much more convenient for the medical electrician. Its great disadvantage is the brittleness of the plates; but this I have corrected by either casting it on a core of tough metal, as copper plates, or by slightly alloying the antimony itself.

In gynecology I can recall nothing startlingly novel that I saw. In spite of the hundreds of specula invented, I find the Ferguson maintaining its place as a clinical instrument; and the number of pessaries about equals the number of gynecologists, each one being conscientiously bound to invent a pessary for himself, which he can praise over all others. In fact, the judicious selection and application of the proper pessary to suit each case in which one is required at all, is perhaps one of the most difficult and unsatisfactory subjects with which the clinical gynecologist has to deal. In engorgements of the os I find puncturing a very favorite method of local depletion, taking the place of leeches, both artificial and natural, as requiring less time, but I cannot say that it seems to me so effectual. In obstinate induration of the os the use of caustic potass seems to be in favor, but its employment requires great caution on account of the danger of serious

inflammation following its application. The treatment of cancer by the subcutaneous injection of bromine is recommended by Dr. Williams, but from what I can see it also is only a more desperate remedy for a fatal disease.

For some time I have been investigating, as opportunity offered, the very remarkable powers of suction, retention and expulsion, voluntary and involuntary, possessed by the vaginal walls. In particular, the value of the voluntary muscular efforts of the parturient female is recognized, but such, I think, is not the case with similar powers possessed by these organs in their normal condition, or, if it has been, it has fallen into obscurity, and is not given that prominence as a remedial agent in cases of displacement of the uterus to which I consider it to be justly entitled.

The degree of force and of capacity varies in different individuals. The former is rather difficult to estimate, requiring the construction of special instruments, which I have not yet been able to perfect. At present, therefore, I can do little more than state the fact. The greatest capacity or power of retention of fluid (water) which has come to my knowledge is half a pint, and this case I obtained through Dr. H. E. Gantillon, Paris, who has kindly consented to aid me in these investigations. Gynæcologists can easily investigate this subject for themselves, but they will find many women who do not possess this power, or, rather, who do not know how to exert it. They must, therefore, be prepared to exercise a little patience in their research, for like all other voluntary muscular action, it can be increased by practice and ultimately become, not involuntary, but unconscious muscular action.

To me it appears to be a mistake to look upon the uterus as wholly an inert organ, subject only to the laws of gravitation, etc., to be pushed about at will, and supported by mechanical contrivances alone, without consulting the voluntary efforts of patient to aid in its support, or without instructing her how to utilize those voluntary muscular efforts to assist in replacing a displaced uterus; and, again, it is highly important that she should be informed how to avoid those expulsive movements which would aggravate her condition if not absolutely cause it.

This remarkable power, when applied to the inhalation and exhalation of air, *as I have seen it*, offers an explanation of many phenomena, such as the crying of a child "in utero," etc., and might give rise to some curious questions in jurisprudence.

It is by no means my intention to propose this as a means intended to supersede the several treatments at present employed, but to suggest it as a most important adjunct in this class of troublesome diseases, whose treatment is on the whole most unsatisfactory. Many displacements I conceive to be more or less the result of a vicious habit, like round shoulders or stoops, and to be capable of amelioration by similar means.

Syphilis, notwithstanding all that has been written about it, appears still to be combated by the same remedies with which we are already acquainted. In the clinic of Prof. Auspitz, at Vienna, I saw the expectant treatment adopted for chancre of every variety, internal remedies only being given where constitutional symptoms appeared. This is entirely opposed to my judgment. For years it has been my custom to treat all cases of syphilis as if constitutional, and then I know I am sure not to err. I know the objections which may be urged against this course, but I think these will be far outweighed by its advantages.

Chronic urethral inflammations are principally treated in the clinic of Dr. Ullzman with injections of one or two per cent. solution of alum or tannin, or both, administered through the catheter.

A magnifying ophthalmoscope has just been invented by Dr. Englehardt, of Munich. In this instrument, refraction is used instead of reflection. The light from a lamp falls on a lens, which causes the light to fall at the angle of polarization on a piece of plate-glass. The light refracted from this plate falls on a second lens, and, concentrated by it, enters the eye to be examined. The examiner, seated in the usual position, sees the image of the eye through the plate-glass, and a lens or two magnify it to any required size. This arrangement, with the necessary boxing, draw-tubes, etc., constitutes the finished apparatus, but a plate of glass to refract the light and a lens

next to the patient's eye to magnify the image makes a practical and useful instrument, as the inventor took much pains to demonstrate to my satisfaction. The same gentleman has invented and uses a cataract forceps, for the positive extraction of cataract.

I do not know if "Drypsine" has yet reached you. It is a principle similar to pepsine, discovered in the pancreas. It has the curious property of dissolving all animal tissues except cellular tissue. I am not acquainted with the method of its preparation, but it does not seem likely to be of much medical importance, as pepsine with pancreatine accomplish the same results for medical purposes.

I desire to call attention to a method of mapping out, as it were, the constant changes of the vital elements (if I may so call them), respiration, pulse and temperature, going on in the system. By assuming for each of these an average of health, say R 18, T 98, P 76, and adding together, a sum is obtained, 192, which may be called a vital number in its simplest form; but I have found it useful to make the picture more striking, and for this purpose I have added the elements in various combinations, thus: R 18, P 76, $R+P=94$, T 98, $R+T=116$, $P+T=174$, $R+P+T=192$. To obtain a graphic representation of these numbers, I assume some unit to be some length, say one-twentieth of an inch, and drawing a line across a piece of paper, I cross it with seven perpendicular lines half an inch apart, one for each of the elements to be expressed, and call them R, P, etc., respectively. From the cross line I measure downwards on the R line 18-20 of an inch, on the P line 76-20, and so on through the other lines; and by drawing a line through these measurements, I obtain a curve which might be called a standard or health curve; but by assuming to reckon from this curve upwards, the cross line becomes the standard or health line, and this is the line I have used as such, because it is more easily remembered than any other, and hence variations can be compared with more facility.

To use this system, variations above or below the health line are to be measured in twentieths of an inch from the health line, and the points so obtained being joined by a

line, give a curve of variation above or below, as the case may be. Thus, R 24 is 6-20 above, P 100 is 24-20 above, etc., R 12 is 6-20 below, P 50 is 24-20 below, etc.

In practice I count the T by tenths of a degree for units, and I use 1-100 of an inch as the unit of length, and the system might be extended to the extent of becoming unwieldy. In its present form, although difficult to describe, it will be found exceedingly simple and very graphic, bringing the daily changes of a patient before the eye with great vividness.

These vital curves (if I may be permitted the name) only supplement the tables of temperature, etc., at present in use, and I have so arranged the forms that both series of lines can be carried on the same table. I have also adopted the system of colors to distinguish the elements from each other, which I find adds somewhat to its distinctness.

I have trusted to this clumsy method of description in preference to sending you a table, because I feared the printing of the latter might be inconvenient to you; but if you desire, I will feel pleasure in sending you one, although you could make one yourself in one-eighth the time it has taken to describe it.

My attention has been directed to some beautiful stereoscopic pictures of anatomical, surgical and pathological specimens, and it is rather curious that these have not become more common, since they can be so cheaply multiplied by printing by the autotype, the Woodbury, or the German Lichtdruck process; and further, there is now no reason why these or other prints of that character should be issued uncolored, for by a recent discovery, made by Mr. Albert, of Munich, this can be effected easily without the aid of an artist. Mr. Albert simply takes three negatives, one each through red, yellow and blue glass; from each of these a Lichtdruck is made and printed with ink of its respective color. The print is made from these three plates, as in chromo lithographing, in an ordinary lithographic press, and the result is a very satisfactory colored print. When coloring is of so much importance, as in medical works, and this can be so easily and cheaply

obtained, there can be but little excuse for issuing books with uncolored illustrations.

R. J. NUNN, M.D.

LA FAYETTE, TEXAS, April 23d, 1878.

DR. J. G. WESTMOLELAND,

My Good Friend—Doubtless you will think that the old adage is verified, (especially in my case) “out of sight, out of mind,” but I will dispel such thought from your mind by complying with a promise made to you before leaving Atlanta, that I would probably write you a short letter before my return to the Gate City.

After leaving Atlanta nothing occurred of any particular interest until our arrival at New Orleans, the great city of the Southwest; it appears to have a go-ahead-ative-ness about it not surpassed by any city I have seen on my route, and in fact, equalled only by Atlanta. We visited many places of note about the city, and was not a little surprised to see the vast amount of business transacted and the improvements going on. The down-trodden city seems to be getting all right. We visited the French market, which excels the market of any city I have ever visited. You can hear nearly all languages spoken, see all colors of people, purchase anything in the fancy line from a spool of thread to a velvet robe, see all kinds of vegetables, all kinds of meats and get anything in the fish line from a craw fish to an alligator.

In close proximity to the market is Jackson Square and the old Spanish Cathedral; the former is visited daily by hundreds of the many strangers in the city, and is noted for its beautifully laid off walks and its artistically arranged flowers, and by an equestrian statue, in the centre, of General Jackson, who looks probably as grand and daring as he did on the day he defended the Crescent City. The Cathedral is noted for its antiquity, being probably the oldest building in the city, and also for its beautiful paintings and frescoing. It is attended largely by the French.

I saw immediately one after the other three funeral processions, which led me to inquire of the gentleman

who sat next to me in the street-car, (who, by the way, I supposed to be a medical man) in reference to the health of the city, who replied that the health of the city was excellent.

I visited several cemeteries, some of which were indeed beautiful—filled with elegant and costly monuments. We saw a very beautiful and elaborately finished monument in Greenwood Cemetery, erected to our Confederate dead, surmounted upon a square base, placed upon the four corners of which were the marble busts of Generals Lee, Jackson, Johnson and Polk.

At this season New Orleans is perhaps as healthy as any interior town. The time for malaria has not arrived, and as the epidemics to which she is subject depends upon this poison, I am not surprised to find the city comparatively free from disease. Yellow fever, that great bane of our Atlantic and Gulf coasts, is certainly the product of this insinuating morbid agent, much as has been said of importation. If it be the subject of importation, why should the sanitary means adopted last year prevent the ravages of this dreadful malady? Certainly the means were directed against the existence and dissemination of malaria in the city.

Our expectation of pleasure up the Red River would have been realized, had it not been for an occurrence that took place aboard our boat shortly after leaving the city, a sadder scene than which I do not think I ever witnessed. Very early in the morning, after we left New Orleans, I heard the cry "My child—my child is dying!" and at that moment, before I and my wife had time to dress, there came rushing into our state room B— N—, with his babe in his arms, in apparently a dying condition, but by the prompt application of such remedies as I happened to have, the child at last revived to some extent, when I, with another medical gentleman on board, used all our efforts to prevent a recurrence of the next paroxysm, but our efforts were unavailing, and in a very short time the child was attacked with another convulsion, and so on, one succeeding another in rapid succession, until at last death relieved the little sufferer just as we reached Baton

Rouge. We used all the remedies we had at hand, to-wit, baths, stimulating, friction, chloroform, etc.

Mrs. N. has lost two, and perhaps three, children the same way. Her children seem to inherit a disposition to convulsions of a fatal character.

The scenery up the Mississippi and Red rivers, in places, is beautiful and picturesque, dotted here and there with the old and dilapidated mansions of the once wealthy inhabitants. There is a sombre and gloomy appearance given to the lands on both banks of the river, by the large quantities of moss hanging from the branches and limbs of the timber. The doctors say the miasm rises as high as the moss grows, and no higher; and as the moss in some localities is much higher than it is in others, they contend the miasm will arise higher, spread farther, and be productive of much more sickness.

I again took railroad at Shreveport, and reached Texas on the ninth day after leaving Atlanta. Since my arrival I have been solicited to visit several cases of sickness, mostly fevers of the remittent and intermittent type—one case near me of a well-marked typhoid type, a lady of thirty-five years of age. There was much more torpor of the liver than usually attends that type of fever in Georgia, especially in the neighborhood of Atlanta. She had been laboring under the fever one week when I first saw her. Pulse about one hundred to the minute, tongue coated over, with edges and tip pale, (which, by the way, is the case with most of the tongues I have seen in Texas in all types of fevers) restless at night, to so great an extent, frequently, as not to sleep more than two hours during the night; loss of appetite. I found her in this condition when first called to her. I began my treatment with three grain doses of sub. mur. hydgr., repeated night and morning for two or three days, and then only one dose at bed time. In a few days her tongue commenced cleaning off. I then recommended calomel every other night, with quinine and whisky during the day—say two grains of the former three times daily. She continued to improve, rather slowly, I thought, though I concluded as they were the only remedial agents I had, and as she

seemed to improve, I would let well enough alone. I had the satisfaction this morning when I visited her, to see her sitting up in a chair; and though she has been desponding most of the time, she acknowledges this morning that she will get well. She was clear of fever, tongue nearly cleaned off, and appetite fair.

I have been called in consultation to other cases, and have seen many of which I can give you a description when I return to the Gate City.

The mercury stands 90° Fahrenheit. Texas is a hot part of the world.

Respectfully your old friend,

JAS. H. LOW, M.D.

EDITORIAL CORRESPONDENCE.

WASHINGTON, ARK., May 1, 1878.

Editor Atlanta Medical and Surgical Journal:

At the hazard of being accused of the *cacæthes scribendi* infection that is so distressing to observers, and is so difficult to cure, I once more offer my mite to the reading matter of your valuable JOURNAL.

More for the purpose of establishing a habit of communicating with the profession through the medium of the medical periodicals, than with any expectation of furnishing anything remarkably interesting, is my writing intended.

In recording my personal experience and observation, I may accidentally benefit some one who may be subjected to some of the individual exigencies that originated my own observations. It is in this manner of making known the practical experience of each practitioner, that facts exemplify the truths or expose the sophistries of theoretical premises.

There is no doubt that many there are who are deplorably affected with a proneness for accepting on *authority* that which should be illustrated by practical experience, and warp their minds into a conceited pedantry, and thereby partially establish a potent obstacle to the progress of rational medicine.

Such person will say, "Prof. Blank has said so-and-so, and as his field of observation, with his facilities for experience are much more extensive than mine, I consider him conclusive authority on this subject."

The fallacy of such a course is graphically illustrated in considering the revolution that has only very recently taken place in regard to the treatment of pneumonitis. On account of the failure to recognize the distinction between the *sthenic* and the *asthenic* varieties of the disease, success reported from one section as resulting from a scientific antiphlogistic course in treating the *sthenic*, led to a like active plan upon the *asthenic*, with, of course, disappointment. It is probable that we are nearing the dawn of such an epoch in the treatment of typhoid fever and cerebro-spinal meningitis. Various conflicting plans are suggested for their treatment, and varying reports as to the success in each plan may be noticed. Local circumstances and constitutional modifications, no doubt, exercise a decided influence, and exist as regulating elements in these affections. Many there are who will report almost universal success in the treatment of each, but such assertions are to be accepted either as ignorance on the part of the assertor, or as a sad commentary on the demagogism that is allowed in the profession. Such meretricious hypocrasies should be suppressed.

In such low, swampy regions as this, my seat of war, we meet the *asthenic* more often than the *sthenic* varieties of disease, and depressant remedies are almost totally discarded from our armamentarium. Though there are the appearances of a high grade of inflammation of the *sthenic* variety, yet from previous experience, reliance is had on the stimulant supporting plan of treatment, more than on the active anti-phlogistic.

As another effect of the malaria in rendering the system susceptible to disease, I have noticed uterine complaints are abundant in this locality, and are attributable principally to this cause.

Remedies that exert tonic effect upon the nervous centres and neutralize or expel the poison generally suffice. again resort must be had to uterine stimulants and hæma-

tinics with the addition occasionally of vaginal injections.

Out here we are exempt from the temptation that induces to that most nefarious of professional irregularity—accepting commission from drug stores for prescriptions made and directed to the store granting the subsidiary.

It is all very well to accept blanks and call lists, but when it comes to receiving a per cent. on each prescription sent, the principle of bribery is carried to its most criminal extent.

More anon.

R. W. WESTMORELAND, M.D.

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This little volume is designed to give instruction to those who have not a knowledge of Latin, in the principles of prescription writing—especially as relates to the terminology of the pharmacopœia. It contains a full list of the declensions of the nouns, together with an explanation of the meaning of many Latin words and phrases used in prescription writing. It is not a book of formulæ—it only teaches *how* to write prescriptions in Latin. We do not hesitate in commending it to those for whom it is intended.

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EXCERPTA.

TREATMENT OF EPILEPSY.—Dr. Shultz records, in the *Berliner klinische Wochenschrift*, the case of a young man, eighteen years of age, the subject of epileptic attacks, which always came on at a certain hour in the day. It mattered not what he might at that time be doing, the attack never failed. It was always preceded by an aura which lasted five or six minutes, and was followed by a sleep of several hours' duration. Quinine large and small doses, strychnine, belladonna, nitrate of silver, morphia, chloral, etc., were all administered without result; the attacks continued to recur at the fixed hour, and even occurred during sleep induced by chloral. Coming at this time under Schultz's care, he determined to test Nothnagle's treatment, and administered a teaspoonful of ordinary salt during the aura. This did not at first prevent the attack, but when on the following day a heaping tablespoonful of salt was given at the very beginning of the aura, no attack took place. For one week the dose was administered at the usual time, although no aura was

perceived. At the date of Schultz's report (seven weeks afterward) no attacks had been observed, though previous to the treatment, the patient had had them for one hundred and thirty-four days in succession.

DR. NATHAN BOZEMAN has been appointed to the position in the New York State Woman's Hospital held by the late Dr. E. R. Peaslee.—*Detroit Lancet*

THE Medical College of the Pacific announces that it has adopted the plan of education at present followed by the University of Pennsylvania.—*Ibid.*

UP to January, 1877, Sir Henry Thompson had performed five hundred operations for stone in the bladder of adult males. The proportion of deaths in the entire number was one to eight and one half deaths.—*Ib.*

THE EXTERNAL USE OF TINCTURE OF BELLADONNA IN NIGHT-SWEATING.—Mr. Nairne writes, in the *British Medical Journal* of February 2, that for some little time past he has employed the common pharmacopœial tincture of belladonna for sponging the body in cases of phthisical and excessive sweating, and invariably with marked benefit. So far as his experience goes, he has found it much better than anything else; if applied before a sweating comes on, it prevents it; if during the sweating, it almost immediately controls it. Two teaspoonfuls of the tincture, mixed with an equal quantity of whisky, are quite sufficient (applied with the hand) to cover the whole body and produce the desired effect.—*Buffalo Med. & Surg. Jour.*

CARRON OIL IN ANAL FISSURE—This painful affection, which has heretofore resisted almost all forms of treatment by local application, has been successfully managed by Carrere, who states in *Annales de la Med. de Grand* that he applies the mixture of lime and water and linseed oil, so commonly used in burns. This is done several times daily, and in all cases he has obtained a cure of it at farthest, eight days.—*Allg. Med. Cent.-Zeit.*

METRIC SYSTEM IN THE UNITED STATES ARMY.—The last circular, issued by Surgeon-General Woodworth, of the Marine Hospital service, stated that medical officers of the Marine Hospital service will hereafter, for all official, medical, and pharmacal purposes, make use of the metric system of weights and measures. In expressing quantities by weight the terms "gramme" and "centigramme" only will be used, and in expressing quantities by measure the term "cubic centimetre." The metric system has already, under the act of July 28, 1866, been adopted by this service for the purveying of medical supplies, and the weights and graduated measures, as well as the glassware, hereafter furnished the medical officers will be in accordance therewith.

Simple rules for the ready conversion of terms of the United States apothecaries' weights and measures into their respective equivalents in metric terms are appended, which, for all medical and pharmacal purposes, are believed to afford sufficiently accurate results. Suggestions are also given as to the mode in which metric medical prescriptions might be constructed, and in relation to the preparation of requisitions for medical supplies in metric terms.—*The Clinic.*

NITRIC ACID FOR WHOOPING-COUGH.—

R.—Nitric acid, dil., 12 drachms.
 Comp. tincture of cardamons, . . 3 drachms.
 Syrup, 2½ ounces.
 Water, 1 ounce.

Mix. One to two teaspoonfuls every two hours, according to age of child.

This is said by Sir G. D. Gibb to be a specific, and will cure in from two days to two weeks.—*Medical Brief.*

POISON IN THE NURSERY.—The constant production of toilet novelties suggests a word of caution to those who purchase them. An analyst writes to the *Lancet* that on making a chemical analysis of a packet of violet powder he found, much to his astonishment, that it contained 25 per cent. of white arsenic.

In this instance the use of the powder had caused an epidemic among young children, many of whom died, the disease presenting every appearance of erysipelas. Here were mothers, while applying an innocent-looking toilet to their children, positively introducing into their systems a deadly and subtle poison.

Our readers may remember that during the trial in London of the notorious Madame Rachel, evidence was given that a violet powder sold by her contained a powerful irritant, which produced an unpleasant rash on the skin.

Comment upon these facts is unnecessary. Probably our readers will accept the hint to purchase such things in future from houses of undoubted respectability.—*The Medical Record*.

TREATMENT OF DIPHTHERIA.—During the past season a very malignant epidemic of diphtheria prevailed in a region of Rhode Island of which Little Comfort is the centre. It attacked all ages, and was very fatal, notwithstanding the conscientious trial of all the usual remedies. Dr. White, of Little Comfort, finally hit upon the following remedy, the success of which was, in almost every case, prompt and efficient:

Pulv. cinchona,	. . . . .	2 parts.
“ capsici,	. . . . .	2 parts.
“ ipecac,	. . . . .	1 part.

M.—Sig. 5 to 10 grains every 2 hours.

Dr. W. subsequently made a tincture from the above powder, which was administered in doses of from 5 drops to a teaspoonful every two hours. Since last fall three barrels of this tincture have been sold.—*Hospital Gazette*.

PROFESSIONAL SECRETS.—The profession of Philadelphia are endeavoring to effect the passage of the following bill:—“No person duly authorized to practice physic or surgery shall be allowed or compelled to disclose any information which he may have acquired in attending any patient in his professional character, and which information was necessary to enable him to prescribe for such

patient as a physician, or to do any act for him as a surgeon."—*Hospital Gazette*.

PUBLIC ANALYSTS.—The *Societe d'Hygiene*, of Paris, is making arrangements to establish in the cities and towns of France chemical laboratories for the purpose of examining articles of food and detecting adulterations or unhealthful constituents.

DEATH OF PROF. FRANCIS G. SMITH.—Dr. Francis Gurney Smith, Professor of the Institutes of Medicine in the University of Pennsylvania, died in his native city, Philadelphia, on April 13th, at the age of 60. Since his graduation in medicine in 1840, he has held a prominent place in the profession. He was one of the compilers of "Neill & Smith's Compendium of Medicine," was editor of the *Philadelphia Medical Examiner* for nine years, and of the American editions of Carpenter's and Marshall's works on Physiology, and the translator of "Barth and Rogers' Manual of Auscultation and Percussion."—*Hospital Gazette*.

INVISIBLE INK FOR POSTALS.—John H. Nelson gives in his "Hand-Book of Formula" the following:

Oxide of cobalt,	½ ounce.
Muriatic acid, sufficient to dissolve it.	
Water,	4 ounces.
Mucilage of gum acacia,	1 drachm.

Characters written on paper with this solution are invisible, but on the application of heat they instantly appear in blue; on cooling they become invisible again.—*Phil. Druggist and Chemist*.

THE COMING DUTIES OF THE ACCOUCHEUR.—Professor T. G. Thomas says: "The time is not distant when confinement cases will be treated very differently from what they are at the present day." This is a subject of the utmost importance. There is the most urgent need of a radical change in the practice of a majority of the profession, and the time is ripe for the appearance of a stirring and able paper on "The Proper Management of Natural

Labor." which will awaken medical men to a sense of their duty in obstetrical cases. The physician should be expected and required to visit his patient from time to time all through her pregnancy, in order to see that every thing is progressing favorably for a successful delivery, and to remove, if possible, any condition (as albuminuria, for instance, which is likely to interfere with this); and I am fully convinced that it will not be long before the accoucheur who does not pursue this plan will be held culpable. Again, he will be held equally culpable if he discharge his patient at the ninth day, or at the end of a fortnight, without making a physical examination to ascertain that the parts have sustained no injury from the strain and pressure of parturition, and that the process of restoration to the normal condition is going on satisfactorily.—*Maryland Med. Journal.*

FOR FLATULENT DYSPEPSIA.—For this form of dyspepsia, which is due to a torpid or semi-paralyzed condition of the muscular coat of the bowels, and usually attended with constipation, the following is an excellent formula:

R.—Tinc. nucis vomicæ, - - - - gtt. v.
 Comp. tinc. gentianæ, - - - - dr. j.
 Tinc. capsici - - - - gtt. x.

To be taken before meals.

A CLEANLY LINIMENT.—

R.—Aq. ammon. fort, 2 ounces.
 Tinct. camphoræ, ½ drachm.
 Alcoholis, 1½ ounce.
 Ol. rosmarini, 15 drops.

Mix.—*Med. Brief.*

TO KEEP THE CORD FROM SLIPPING IN EXTRACTING THE PLACENTA.—I have been in the habit of wrapping around my finger a small piece of rag when I extract the placenta after delivery to keep the cord from slipping. I find it to save one a great deal of time and trouble. It may not be new to all my medical brethren, but I was in consultation with a doctor of large practice of many years, who was so pleased with it that he said it ought to be generally known.—*Med. Brief.*

A GOOD CLEANSING FLUID.—The following is recommended for washing alpaca, camel's hair, and other woolen goods, and for removing marks made on furniture, carpets, rugs, etc.: Four ounces ammonia, four ounces white Castile soap, two ounces alcohol, two ounces glycerine, two ounces ether. Cut the soap fine, dissolve in one quart water over the fire, add four quarts water. When nearly cold, add the other ingredients. This will make nearly eight quarts, and will cost about seventy-five cents. It must be put in a bottle and stoppered tight. It will keep good any length of time. To wash dress goods, take a pail of lukewarm water and put in a teacupful of the fluid, shake around well in this, and then rinse in plenty of clean water, and iron on wrong side while damp. For washing grease from coat-collars, etc., take a little of the fluid in a cup of water, apply with a clean rag, and wipe with a second rag. It will make every woolen fabric look bright and fresh.—*Boston Journal of Chemistry.*

LOCAL TREATMENT OF ACNE.—Dr. Robert Liveing, in the London *Lancet*, advises the following plan as generally successful: (1.) The face should be steamed every night by holding it over a basin of hot water for a few minutes. (2.) The skin should then be well rubbed for five or ten minutes with soap and flannel, or a soft nail brush may be used with advantage where the skin will bear it; the soap should then be sponged off with warm water. (3.) When the face has been dried, a lotion composed of half an ounce of precipitated sulphur, two drachms of glycerine, one ounce of spirits of wine, three ounces each of lime water and rose water, should freely be applied and allowed to remain all night. Add ether to the lotion, if the skin is greasy. Sometimes an ointment—hypochloride of sulphur $\frac{3}{4}$ iss., carbonate of potash gr. x., oil of bitter almonds gtt. x., and lard 3 i., or sulphur ointment 3 iij., with vaseline 3 v.—is better than the lotion. In either case leave the application on all night, and in the morning let it be washed off with warm oatmeal and water or weak gruel.

ATLANTA Medical and Surgical Journal.

VOL. XVI.]

JULY—1878.

[No. 4

Original Communications.

UTERINE TROUBLE AND ITS TREATMENT.

By A COUNTRY M.D.

Endometritis, whether existing as a result of subinvolution, malformation, malposition, or what not, is always, in its chronic form, more or less obstinate, and requires tedious treatment for its complete cure.

That the general system should be deleteriously impressed by the uterine disturbance set up by this inflammation, is inevitable, and not to be wondered at, since the sympathetic connections existing between the uterus and all other vital organs is so intimate, that uterine disturbance of almost any nature, or of any duration, exhibits a qualified disturbance in remote parts. This reflex derangement constitutes not, however, the sum of evils usually met with in a case of chronic endometritis. Local difficulties exist which, though not so extensively harrassing as the reflex, yet are sources of considerable annoyance, discomfort, and even at times, serious complications. But a graphic delineation of the pathological diversities or peculiarities coincident with this complaint is not necessary; every physician is acquainted with them. They, collectively and severally, serve to form the pathognomonic symptoms of uterine derangement, and in connection with the various modes of local examination, designate the individual character of the malady. One ridiculous

and unwarranted phase exists in uterine practice, and is referable to the want of intelligence or want of information with the laity. In certain locations, (it may be remote or it may be contiguous to populous centres, where professional talent and scientific requirements concentrate and control ignorant prejudice), there exists a characteristic antipathy against all forms of local uterine treatment. Persons affected with this prejudice tenaciously cling to the belief that the temporary relief afforded by the various lenitive remedies is either sufficient, or as much as can be accomplished toward a cure. In instances where they may be induced to a contrary view, they submit with a lingering reluctance.

Great difficulty is experienced at times in inducing to this course; and particularly is this embarrassment felt by the younger members of the profession, and *more particularly* by those unfortunate beings embraced in the category of "*unmarried young doctors*." What is the talismanic influence that impels this prejudice—that instigates this unjust predilection for "old married men" in duties where the young would prove equally as efficient? It is not a consideration of competency, but of social predisposition. It is not, certainly, a question of propriety, but it must be an unjust impression of moral delinquency.

On account of these various reasons, the majority of cases of this class are of the chronic kind, and will, of necessity, have to be subjected to constant and protracted treatment before a cure can be realized.

The measures to be adopted in the treatment are of twofold character, viz: constitutional and local. It is invariably the case that the reflex nervous derangement has fully established the so-called hysterical condition, with its concomitant features, anæmia and general debility. Pain, aches and functional derangement of various organs exist as manifestations of cerebral or spinal disturbance. Remedies whose action tends to obstruct the reflex activity of the spinal centre are here indicated, and the bromides and chloral will be found to be our best agents. Spinal stimulants, too, are here very serviceable; and amber, asa-fœtida, etc., may well be combined with the foregoing.

To change the depraved blood condition is a very important indication, since the improved nervous state could not be long sustained with a blood dyscrasia. Here the preparations of iron, in combination with those drugs that benefit the digestion, are essential, and will result in much good if assiduously administered. Hot hip baths and hot foot baths will be found no insignificant auxiliaries, and should always be resorted to.

Local measures consist of those that are medicinal and mechanical.

For the local application of medicines, we have as the appliances most worthy of note, Simpson's uterine syringe, and Taliaferro's uterine tent. The latter, as combining the component parts of the local treatment, (medicinal and mechanical) is superior to every other instrument. The tent is saturated with the alterative, astringent or cathartic, and introduced into the uterine cavity, where it comes in contact with the whole diseased surface, fundus and cervix. Independent of any direct or elective action of the medicines, the tent exerts its own benefit—which is stimulant and tonic—to the displaced or weakened uterus.

The principal articles used for this local application are iodine, carbolic acid, and tinct. ferri chloridi. The idea advanced by some physicians, more ideal than practical, that an injection, full strength, of tinct. ferri into the vagina alone, until a cast of the cavity has been thrown off, as a result of the cauterization, can claim no merit except of being barbarous. A weak injection of this tincture, however, is very valuable in vaginal leucorrhœa; yet it serves no advantage to the uterus, not even on the theory of counter-irritation.

I have just seen a case in which a contracted cervix and os have given rise to a series of hysterical phenomena, as well as a chronic endometritis, that well illustrates the importance of immediate local treatment. The subject, a maiden, was formerly subject to epileptiform convulsions, but probably the thorough establishment of the catamenia was the cause of the modification. She has no fits now, but most distressing headaches. I propose using a sponge

tent on this case, and hope to be able to report to you a favorable result.

A PECULIAR DEFORMITY.

BY H. A. KIKER, M.D., TALLAPOOSA, GA.

Deeming it the duty of every member of the profession to report all cases that would be of interest to its members, I send you the report of a case which is a freak of nature entirely new to me, as it will perhaps be to the profession generally.

While on a visit to this place last August I was called on to remove what I pronounced a supernumerary nose on an infant three weeks old. It was a small pear-shaped organ, situated on the right nasal bone near the inner canthus of the eye, with the base downward. It consisted of skin, soft cartilage and mucous membrane, and was about the size of a natural nose of an infant of that age. It was connected with the right nasal cavity by two openings, these running into one, near the lower end of the organ, that would only admit a small probe to be passed through it. The air passed through the organ while breathing—the right canal of the natural nose not being as well developed as the left, owing, as I think, to a portion of the air passing through this extra nose. It was not called into use equally with the left side, or, in other words, there were two air passages on that side to do the work of one. I removed this supernumerary nose by making an incision from the internal and inferior surface upwards and outwards, making a semi-circular flap of skin from superior and external side of the organ to cover the wound; had considerable hemorrhage for a few seconds from a small artery that supplied the organ, but it was easily controlled by pressure. The flap was secured by one suture. The operation was performed without anesthetics, by the infant being held on the lap of an assistant. I did not visit the case after the operation, but learned that the wound healed by the first intention, and that the child is doing well up to the present time.

TYPHOID FEVER.

By J. R. GROOVER, M.D., MICA, PICKENS CO., GA.

I propose briefly to give a plan for treating typhoid fever that has proved very successful in my hands, having used it in a great many cases during the past three years:

Diluted phos. acid 20 gtts. every four hours through the day, alternated with a powder composed of ipecac, camphor and prepared chalk, powder being changed as indications may require.

To allay nervous irritation and procure rest:

Bro. potassium every three hours through the night.

If the patient has more than three operations on the bowels in 24 hours, I usually prescribe tannic acid and opium, to be taken every time the bowels operate, until the diarrhœa is checked or the patient is thoroughly under the influence of the opium.

These remedies, with sponging the body and cold cloths to the head when the fever is high, and corn whisky through the night, if it is of the lower grade, with the necessary nourishment four times a day and once at night, will cure nearly every case of uncomplicated typhoid fever.

Reports of Societies.

MEETING OF THE BALTIMORE ACADEMY OF MEDICINE, APRIL 16TH, 1878.

Dr. Wm. Lee related the case of a lady suffering with severe gastric pains of a neuralgic character, accompanied by nausea, vomiting, headache, and exhaustion, in which the symptoms were relieved by injecting subcutaneously the hydrobromate of quinia, in m. xx, twice daily for six days. This case had lasted several weeks, and resisted the usual remedies.

Dr. Chisolm related some cases illustrating the inappropriate treatment often resorted to in eye diseases.

1. A patient who was cut through the cornea by the glancing of a nail, with emptying of the aqueous chamber and a protrusion through the wound of a portion of the iris, forming an iritic hernia, was treated by poultices and blue pills, followed by heavy saline purgatives, which treatment was kept up persistently for a week, at which time the case was sent to him by the family physician. Cutting off the protruding iris, and liberal use of atropia very soon brought about improvement.

2. A lady suffering under specific iritis, innocently acquired, was actively treated by a strong nitrate of silver collyrium, much to her detriment. This, apparently, is the stereotyped treatment of many practitioners, who mistake the conjunctival injection for the primary lesion, and neglect to use the atropia drop, which, in all cases, will clear up the diagnosis, and under no condition can do harm.

Dr. Chisolm also related the following odd case of injury to the eye:

A child eighteen months old fell upon the floor and got up screaming, with his hand to his eye. A casual examination of the eye indicated no injury, but as the child continued to cry, and to direct attention to the eye, further examination was made, and a glistening metallic point was found protruding in the vicinity of the caruncula, which being drawn upon, an entire pin was extracted. It must have been sticking upright in the floor, when the child falling upon it, drove it headlong into the socket, between the eyeball and lachrymal sac.

In connection with this, Dr. C. related a case, formerly reported by him, in which a girl, whilst shaking a carpet, received, as she thought, some foreign body in the eye. Upon careful examination, the head of a pin was seen sticking to the upper lid, and when pulled upon the pin was drawn out entire. Driven with force by the shaking of the carpet, it had entered the upper eyelid point foremost, and its velocity was sufficient to drive it entirely through the eyeball, the pin-head alone preventing its disappearance in the socket. The point had escaped at the fovea centralis, and had destroyed vision by causing, in course of time, detachment of the retina.

Dr. Erich reported the case of a girl aged seventeen, in whom the vagina was absent. The uterus was present, and for four years she has suffered terribly every month during her menstrual periods, requiring large doses of morphia for her relief. A surgeon in the city once attempted an operation upon her, but desisted after penetrating the rectum. This aperture has healed up, and Dr. E. proposes to attempt to make a passage with the knife through the fibrous tissue to the uterus.

Dr. McKew reported a case of cystic trouble, characterized by inability to retain the urine longer than from one-half to one hour, and the urine passed being sometimes bloody. No calculus could be discovered, and kidneys and urethra were healthy. Drugs having been used ad nauseum, milk diet was advised; this was begun last November, and kept up strictly to the present time. The patient expresses himself as feeling "very comfortable" under this limited diet, and says he does not know what it is to feel either hunger or thirst. At first the bowels were constipated, but afterwards became regular. He still passes urine very frequently, but can retain it two or three hours, and he is very well satisfied with this result. He presents a hearty and robust appearance.

Dr. McKew also related a case of otitis media, in which the purulent discharge takes place through the nose and mouth, as well as the meatus auditorius externus. When the patient holds his head over and presses on the healthy side, pus flows from the diseased ear.

Dr. Chisolm said it was not uncommon for the discharge to flow out through the nostrils, since it finds its way into the pharynx through the eustachian tube, and is thence directed along a sort of slight ridge into the posterior nares. He also said that in case of rupture of the membrana tympani, injections into the nares will emerge from the external auditory meatus; indeed, this is the method of treatment employed in affections of the middle ear, such as Dr. McKew has described. The patient is made to swallow at the moment the injection is made, by which the palate is raised to a level with the floor of the posterior nares, and the walls of the pharynx compressed,

the fluid by these means being forced to make its way into the eustachian tubes, thence to the middle ear. In using the nasal douche, it is therefore necessary to be cautious when strong injections are employed. A eustachian catheter is not essential in the injections referred to; indeed, they cannot be made through it. The explanation of the effect of pressure in causing the discharge of pus from the ear, is probably to be found in the fact that the purulent collection is subpericranial.

Dr. J. Carey Thomas reported that he had been using glycerine in drachm doses, thrice daily, in several cases of piles with favorable results. It produces a slightly laxative effect, also soothes and relieves pain.

Dr. McKew referred to a case of diabetes mellitus (with a s. g. of 10 36, and urine heavily laden with sugar), in which the thirst was relieved by the muriated tincture of iron.

Dr. Erich had found irritability of the bladder one of the most troublesome symptoms in diabetes; in one case the patient was unable to retain his urine longer than one hour.

Dr. McKew reported that his experience with dialyzed iron is unfavorable.

Dr. Chew said that he finds it as useful and reliable as any of the chalybeates, and thinks it likely to prove as effective an antidote for arsenious acid as the sesqui-oxide of iron.

Dr. Arnold prefers the older preparations, as iron by hydrogen, and the pills recommended by Niemeyer. There is an unofficial preparation (*tinctura ferri pomata*) kept in the German shops in this city, which he finds a reliable chalybeate; it is made by mixing iron and mashed apples, the result being a malate of iron. He believes the undoubtedly beneficial effects of muriated tincture of iron in erysipelas due not to the iron, but to the muriatic acid, and he finds the latter used alone equally as efficacious as the former.

Dr. Arnold related a case of otorrhœa, in a man of forty, which had lasted from childhood. The patient was subject to three or four times a year to attacks of acute mania,

each lasting about six weeks. Thinking these might be due to the discharge from the ear, he sent the case to an aurist, who cured the otorrhœa, since which (nine months) he has had no occurrence of the mania.

BALTIMORE, MD., May 7th, 1878.

Dr. Cordell reported the case of a real estate agent, aged fifty-eight, height 6 feet 3½ inches, weight 120 pounds. At the age of fourteen he had typhoid fever; since that time has never been sick. Weight is the same now as at twenty-one. At the age of twenty-five he lost his appetite for breakfast, and has ever since dispensed with that meal. At the age of fifty-two, owing to the distance from his place of business to his residence, he gave up dinner also; for the last six years he has, therefore, confined himself to one meal a day, and that about 6 P.M. From the time of rising in the morning until this hour, not a particle of food or fluid of any kind enters his mouth. During the six years in which he has partaken of but the one daily meal, his health has been excellent, he has had no dyspepsia, and his bowels have been open once daily. He uses no stimulants, and for the last two years has drunk no tea nor coffee. The evening meal is moderate in quantity, embracing the usual variety of a dinner table; he rarely, however, eats any other meats but fresh pork and bacon. Between the meal and bed-time he drinks a large quantity of water.

Dr. Richard McSherry reported the case of a lady with mitral insufficiency and regurgitation, who two weeks ago had a congestive chill; the pulse was imperceptible, and she occasionally coughed up bloody mucus. Whisky administered by the mouth was immediately ejected. The prognosis was exceedingly unfavorable. The treatment consisted in cautiously allowing the inhalation of ether, rubbing the surface with ammonia, and applying sinapisms, and in injecting hypodermically equal parts of whisky and ether at frequent intervals. In eight hours she became conscious and was able to speak. The patient's life was, he believed, saved by the hypodermic treatment.

Dr. McKew referred to a case in the practice of a prominent physician in Washington, in which fatal narcosis resulted from a hypodermic injection of grain one-third of morphia in pneumonia. He (Dr. McK.) begins generally with grain one-fifth. Has never seen any ill-effects from such treatment.

Dr. McSherry referred to a case of pleuritis, occurring many years ago under his care, in which fatal narcosis resulted from morphia administered per ore, in repeated small doses, the amount taken in all not exceeding gr. i. On *post mortem* examination, the pleural sac on one side was found filled with gelatinous matter, which had strongly compressed the lung on that side.

Dr. Chisolm had seen grs. iij, given hypodermically in one habituated to the use of the drug in this manner, and once met at his office a newspaper reporter, addicted to opium eating, who told him that he had taken 3 ij at one dose, with suicidal intent, without any bad effect. He also had a patient aged seventy, one of the best legal minds in the section of country in which he lived, who took daily grs. xij, and still continued the habit without detriment. He had also seen another case in which 3j was taken at a dose.

Dr. Ward had seen a patient, a boy with rheumatism, who took by mistake gr. iss of morphine, with no ill effect, but decided benefit, the rheumatism being entirely relieved.

Dr. McKew had seen a patient who took about 3j at a dose.

Dr. Erich regulates the dose according to the amount of pain, and with a person accustomed to the use of tobacco and other stimulants, he begins with gr. ss. A patient of his with asthma, took 3ss. of morphia, which produced contraction of the pupils and stupor. These symptoms were relieved by electricity. He also used chloroform and ergot hypodermically, and once saved a patient suffering with post partum hemorrhage, by subcutaneous injections of brandy. He has never seen an abscess result from hypodermic injections of morphia, which he attributes to the fact that as soon as cloudiness appears

in his solution, he ceases to use it, or at least filters it through his handkerchief, which can easily be done at the moment.

Dr. McKew said that he also had never had an abscess follow his injections, although he paid no attention to the cloudiness of the liquid; he does not regard as the cause of abscesses the minute organisms upon which the opacity depends.

Dr. Lee had been informed that in Paris they seek to avoid after-trouble by using cherry-laurel water; he adds to his solution a minute quantity of carbolic acid. He also referred to the treatment of anæmia by hypodermic injections of solution of dialyzed iron.

Dr. Chisolm quoted statistics of McCarthy Dawson, of London, showing the fatality of ether inhalations; in the report 151 deaths from ether had been collected.

Dr. H. P. C. Wilson regards ether equally as dangerous as chloroform.

Dr. Chisolm reported several cases of eye and ear trouble, as follows:

1. Rupture of membrana tympani from a person suddenly and gently pressing his open palms over the ears of the patient from behind. The rupture was due to the compression of the air in the meatus auditorius externus. Buzzing, dizziness, and slight dullness of hearing resulted immediately. The prognosis of such cases depends upon whether the bones of the tympanum have been displaced inwards into the labyrinth or not; in the former case the loss of hearing and vertigo will be permanent, in the latter complete recovery will take place. The eustachian tube is closed except in gaping and yawning; hence the air cannot make its escape by that channel.

2. Case of supposed amaurosis in a child four years of age, presenting a spot in the centre of the pupil, due to intra-uterine ulceration of the cornea, and escape of aqueous humor. On further examination, double cataract was also found, zorial in character, but of extensive development, which, as it was surrounded by a layer of healthy lens substance, gave a blackness to the pupil quite different from the usual white opacities of the lens in child-

hood. It was only under full dilatation of the pupil from atropia, that the red reflex of choroid could be perceived around the margins of the lens.

3. Case of ciliary staphyloma of long standing, with complete destruction of vision, exciting sympathetic ophthalmia in the other eye. A blow from a piece of stick in cutting wood had struck the staphylomatous projection, and ruptured the eyeball, necessitating enucleation.

4. Case in which an explosion of a keg of gunpowder took place, twenty-three years ago, injuring the face extensively, especially the forehead. During the cicatrization from the sloughing, the upper lids were absorbed by contraction of the eyebrows, causing marked ectropion and exposure of the eyeballs. To relieve this condition, the lash border was loosened from its elevated position, drawn down to its proper place, and a tongue of skin cut away from the temple, was inserted for the formation of a new lid. As the mucous membrane still pouted in excess, it was necessary to restore the upper *cul-de-sac* by the application of a suture support, passing from the brow downward. Final result of case very satisfactory. In this connection Dr. C. reported several cases of blepharoplasty, in which the new lids had been taken from various parts of the face, sometimes from the skin of the temple as in this instance, at other times a plug of skin had been taken from the cheek with footstalk from the temporal region; again a flap of skin from a direction parallel with nose, with footstalk at inner canthus. The only objection to temporal flaps was the free hemorrhage from cutting the temporal artery.

5. Case illustrating slowness of development of cataract. Patient seventy odd years of age. Saw the patient first in 1868; found then incipient cataract. A drawing of the striations was then made. A comparison of this drawing with the appearance now presented shows that there has been no change after nine years, although the prospect from general experience was that in 18 months or two years the cataract would have occupied the whole of the lens.

6. Case illustrating the rapid development of cataract.

A patient had incipient cataract, but had good sight for two years, until one morning on rising he found his sight gone.

Dr. Erich brought up the subject of the comparative fatality of craniotomy and Cæsarean section. The former is far less serious than the latter; statistics show twenty-five per cent. of deaths in Cæsarean section. He has had fifteen cases of craniotomy without a fatal result. Every effort was first made in these to extract with the forceps; one of the fifteen was an eleven months fœtus, the nails were long, and it was as large as an infant of two months, whilst the mother was a woman of small size. Another case was a twin-pregnancy, in which craniotomy was performed upon the first child after unsuccessful use of the forceps; the forceps also failed with the second, which was delivered dead-born after the performance of version. His rule is, when forceps have been tried in vain, to proceed at once to craniotomy, not to attempt version. He referred to a case in which a surgeon operated with Smellie's scissors; the uterus was perforated, the bowels protruded through the rent, and were drawn out by the operator, who then recognized what they were and restored them as best he could, but the patient died. We must give due weight to the consideration that craniotomy is done by all practitioners; the Cæsarean section by surgeons only.

Dr. McKew said that the Cæsarean section had not been performed sufficiently often in this city to decide the question proposed by Dr. Erich. He has had three cases of craniotomy, none of Cæsarean section on the living subject. Craniotomy done at the proper time does not compromise the tissues of the mother. Has never seen any ill results from craniotomy in his own or the practice of others.

Dr. H. P. C. Wilson has performed craniotomy three times, and agrees with Dr. Erich as to the safety of the operation when performed at the proper time.

Dr. Van Bibber said the operation of craniotomy should, as a rule, be limited to those cases in which the diameter of the pelvis is less than three inches. He related a case of extra-uterine fœtation, in which, after lasting several

days, the pains subsided, and the patient lost sight of. Six years and a half afterwards, she came under the care of Dr. C. Johnston, suffering with symptoms of chronic dysentery. He was led by peculiarities of the case, to make a digital examination of the rectum, and thus detecting the presence of a foreign body, he extracted portions of the skull of the fœtus, and finally the entire remains. He also related a case in which the pelvic canal was so encroached upon by an osseous tumor, that not only was natural labor prevented, but the Cæsarean section was seriously contemplated. In the emergency, it was determined to try and deliver the fœtus by drawing down the extremities. This was successfully done, and the body extracted, but the head could not be gotten out, and the woman finally died exhausted. A consideration of these cases had suggested to him whether it were not better to leave the child undisturbed in utero, and trust to the resources of nature, in these dystociæ so seriously jeopardizing the life of the mother.

Dr. Erich thought the patient would certainly perish from septicæmia if this course were adopted.

Dr. McSherry preferred Cæsarean section to craniotomy in all cases where the child is living.

Dr. McKew thought craniotomy should not be performed upon a living fœtus; we have no right to destroy a life to save a life.

Dr. J. Carey Thomas reported a case in which the end of a vaginal syringe was broken off in the vagina, and passed afterwards with the menstrual flow.

Dr. Van Bibber reported the case of a lady at the "Carrollton," on her wedding trip, from whose vagina he extracted three pieces of broken syringe.—*Maryland Medical Journal.*

MEDICAL AND SURGICAL SOCIETY OF BALTIMORE

Dr. Wilmer Brinton exhibited a patient with the following history of syphilis from a bite:

J. W., aged 22, oyster shucker by occupation. About

Christmas, 1877, had a disagreement with one of his fellow-workmen which resulted in a fight. During the fight W. was bitten on the nose by his opponent, producing a rather severe wound, which, however, readily healed. About a month after the fight occurred the patient noticed that his nose became sore at the point where he had been bitten. This increased, becoming painful and swollen. A few weeks later the submaxillary glands became enlarged and tender, the enlargement being more decided upon the side where the bite was. There was some fever, sore throat and *malaise*, as the patient expressed it, "a bad feeling generally." About a week before applying for advice, an eruption of brownish spots, with some pimples here and there, appeared on his breast, back, arms, buttocks and thighs. When questioned regarding previous venereal troubles, he confessed to a clap about three years ago, but denied any knowledge of any ulcer of the penis. Inspection of the genitals failed to reveal any lesion or cicatrix upon the penis. The inguinal glands were very slightly enlarged. No induration along the course of the urethra, and had never suffered from stricture. Had not noticed any falling of the hair.

The site of the original injury was found to consist of an ulcer seated upon an indurated base. The submaxillary and post-cervical glands were found enlarged, and the pharynx injected. On stripping him, his trunk, arms and thighs were found covered with a well marked erythematopapular eruption, the spots beginning to fade upon the chest and being apparently succeeded by disseminated pustules, which were most numerous around the neck. The diagnosis arrived at was that the case was one of syphilis, and the mode of infection had probably been through the bite upon the nose. It was assumed that the inflictor of the bite was syphilitic. Dr. Rohe had been called in consultation, and after examining the patient confirmed the diagnosis, but suggested "confrontation" of the patient with the man who had bitten him in order to render the evidence of the source of infection complete. On the following day the latter individual was found and examined both by Dr. Rohe and himself. An examina-

tion of the mouth revealed a large mucous patch occupying the inside of the left cheek near the labial commissure. The patch had a grayish surface, with shallow fissures running through it in various directions, and a large, firmly infiltrated base. As the evidence was deemed sufficient, no further examination was made of the man. He admitted voluntarily that some time last fall he had suffered from "the bad disorder." (Under the use of calomel locally, and bi-chloride internally, the patient, W., rapidly improved.)

Dr. I. E. Atkinson said the eruption was undoubtedly syphilitic in character, and was doubtless communicated in the manner suggested by Dr. Brinton.

Dr. Caldwell referred briefly to the manifestations of the disease in this case, and reminded the Society of the cases reported by Dr. Sims at the American Medical Association.

Dr. Rohe said he had seen this case with Dr. Brinton and had examined the man who had inflicted the troublesome bite. Although this mode of communicating syphilis was rather unusual, five cases had recently been reported by Professor Zeissl, of Vienna. One of Zeissl's cases was strikingly similar to the one just related by Dr. Brinton. The patient had been bitten by a comrade in the hand during a brawl. The wound, which was over the metacarpo-phalangeal articulation of the left thumb, readily healed, but in a month became infiltrated and ulcerated. Secondary syphilis resulted and the man had an erythematous syphilide when he came under Prof. Zeissl's care. In another case, the initial lesion followed a kiss upon the cheek. In two cases the disease was communicated during the performance of the sexual act. The remaining case was published about nine years ago in the *Medical Times and Gazette*, and occurred in a London policeman who was bitten on the finger by a prisoner whom he had arrested. Thorough examinations had been made in all these cases and infection in the usual way excluded.

Osteo-Sarcoma.—Dr. Evans related a case of supposed osteo-sarcoma of the humerus, in a boy 12 years of age.

The swelling had been noticed shortly after the boy's arm had been rudely pinched or grasped by a teacher. In the opinion of most of those present the growth of the tumor, as reported, was too rapid to be a sarcoma.

Intestinal Hemorrhage.—Dr. Leonard related the following cases of intestinal hemorrhage :

1. Miss M., aged 23, school teacher, alternates between two school rooms, the one kept hot, and the other quite cool; thermometer in the latter being frequently as low as 56° (Fah.) while in the former it is generally over 70°. Has had hemorrhage from the bowels during the winter of 1876-'77, with a subacute hepatitis and constipation. Gave her laxatives and ergot. The hemorrhages recurred in July, 1877, January and February, '78 (lasting six weeks), and again in March. After the last attack there was a purulent discharge from the bowels. She also complained of hemorrhoids. Would not consent to a rectal examination. The cause of these attacks was thought to be portal congestion following constant exposure to marked changes of temperature.

2. Mrs. N., aged 30, was first seen March 17, 1878. Is seven months pregnant. Has had fifteen hemorrhages from the bowel during the preceding week; is very much exhausted from loss of blood; pulse weak and compressible; 90 per minute; temperature 99.4°. Abdomen tender and tympanitic; constipation. Ordered a simple laxative.

18th. Has had no operation, but passed blood three times to-day. Ordered enema and castor oil.

19th.—9.30 A. M. Had a slight evacuation, scybalous and covered with blood. Had hemorrhage during the night and feels faint. Ordered use of bed-pan and a pill containing

R.—Hydrarg. chlor. mit, grs. iii.

Aloes, gr. i.

Pulu. doveri, gr. i.

SIG.—“At bed time.” M. ft. pil. i.

8 P. M. Was called to see her suddenly. She was reported to be in a convulsion, following a fainting fit. Judged the convulsion to be anæmic. Rectum healthy

and empty; no piles. State of os indicates 8th month or later. Ordered fl. ext. ergt. 15 drops every 3 hours, with digitalis and stimulating diet.

21st.—9. A. M. Had several hemorrhages last night, but feels better; pill caused three free evacuations, first scybulous, last soft and normal. Ordered opium. 5 P. M.—One slight hemorrhage at 4 P. M. Feels better, but wants sleep; gave opium gr. 1 every three hours.

Midnight. Was sent for, as she again had a convulsion. Her condition was now so threatening that a consultation was determined on, with the view of inducing premature labor. Ordered chloral as a nervous sedative.

22d. Very weak; although she has had three more hemorrhages, her condition is so much improved that, with Prof. Arnold's advice, the induction of abortion was postponed. Had several labor pains during the day. Continued ergot and gave her ether for the fainting spells, of which she had several during yesterday and to-day. Has pain in the back, and several bearing-down pains, but the intervals are very long.

23d. Witnessed one of her convulsions to-day; it was not anæmic, but hysterical; while it lasted, respiration and pulse were slightly accelerated; eyes rolling and limbs rigid. The attack was preceded by a smothering sensation. Pains more frequent with discharges of blood from uterus after the pains. Stopped ergot and gave one-quarter gr. morphia, and 30 grs. potassium bromide every three hours.

24th. No hemorrhages, no convulsions, two fainting spells; labor pains increasing. Continued bromide and gave one-quarter gr. calomel, as there had been no stools, no appetite and bad taste in the mouth.

25th. Labor pains increasing in frequency and strength. Gave viburnum prunifolium, 3 i three times a day. This was continued for three days, producing considerable disturbance of the stomach, but no appreciable good effect upon the uterine contractions. The pains continued strong but produced no dilatation. The viburnum was then stopped and the pains gradually wore away without any special treatment, and the woman finally recovered.

Treatment of Piles by Injection of Carbolic Acid.—Dr. Monmonier reported several cases of piles treated by the injection into the tumor of a strong solution of carbolic acid. The method, he said, was safe and effectual, and could be used in cases of persons who refused to permit the removal of the tumors by means of the knife, ecraseur or ligature. Drs. Brinton, Fiske and Leonard had tried this and found that in their hands it caused such excessive pain they would never be willing to resort to it again.

Dr. Monmonier also related a case of prolapse of the rectum, which he had successfully treated by means of the thermo-cautery.

A singular case of aural vertigo was related by Dr. Theobald. A little girl, two years of age, deaf and dumb from birth, was affected in the following manner: Frequently while running about the room playing with the other children, she fell directly backwards, striking sometimes violently on the back of the head. The attacks seemed to come without any premonition. It was believed to be due to some defect of the semi-circular canals.

Dr. Caldwell referred to a case previously shown to the Society by him, which had presented similar features.

Dr. Caldwell exhibited a patient with paralysis. Colonel —, 57 years of age, was attacked one afternoon last November, after exertion and exposure to cold, by paralysis. The paresis extended, and on the following morning the whole of the left side was affected. He remained under care of his family physician until February last, when Dr. Caldwell was consulted. Under the use of large doses of bromide and iodide of potassium and the constant current, he rapidly improved. There is still sensory disturbance, pains about the hip and shoulder and severe headache, particularly at night. Has occasional diplopia, but no headache for five years previous to the seizure. Is very much troubled by inability to sleep. He has been married thirty-five years and is the father of one child, stated to be healthy. Syphilis was suggested as the cause of the troubles, but patient avers that he has not had sexual intercourse for 34 years.

PROCEEDINGS OF THE GYNÆCOLOGICAL SOCIETY OF BOSTON.

The ninety-first regular meeting of the Gynæcological Society of Boston was held, according to announcement in the *Journal*, at the Evans House, on the first Thursday in May, at three o'clock P. M. After the transaction of preliminary business, the doors were opened to such of the profession as had responded to the 'general invitation to attend. Among others present were Drs. Garratt, Gilman, Kimball, Marcy and Norris of Cambridgeport, Jones of Newton, and Wingate of Wellesley.

Dr. Cutter, active member of the society, proceeded to give a digest of fifty cases of uterine fibroids treated by electrolysis, conjointly by himself and Dr. Kimball.

The uterine fibroid had proved intractable under other methods of medical and surgical treatment, but results by electrolysis had exceeded expectation. Two ladies, who had been cured by this method, had kindly consented to be present, and were introduced to the society—their cases being given in detail.

Upon invitation of the chair, Dr. Garratt followed with brief remarks. The question of interest is, Does the electric fluid pass through the tissues? He formerly believed it did not; he now knows that it does. He had given a great deal of study to this question; an ordinary galvanometer will not solve the problem, but his own more perfected instrument had done so. The old idea that the human body resists the passage of the electric fluid is false; it is a better conductor than water; indeed, one of the best of conductors. He did not understand how the process was set up by which the tumor was removed, but that it accomplishes such removal there can be no doubt. Dr. Garratt farther observed, that when Dr. Cutter first called on him some years ago with the project, which had been so well developed and so completely justified by the paper just presented, he was skeptical; very willing that the experiment should be made, but he had no faith in any practical results. He was glad to testify that Dr. Cutter was right, and that he had gone farther in this department than he had himself.

Dr. Warner asked whether the electric fluid would as readily pass through dead as living flesh.

Dr. Garratt replied, no; experiments on the cadaver were not conclusive.

Selections.

MINER'S WRIST.—After a somewhat extended search through the literature of medicine, both standard and floating, I am unable to find any direct allusion to the condition about to be described, and which I have taken the liberty to call miner's wrist. I have chosen this heading, not because the affection is exclusively confined to miners, but because it is more noticeable among them than elsewhere, and more particularly on account of its brevity.

The affection consists of an inflammation of the muscular structure, or its sheath, or both, of the extensor ossis metacarpi and of the *primi internoddi pollicis*. It is characterized by swelling, contraction and progressively increasing painfulness of the muscles involved, which is much aggravated by motion, and especially by attempts at supination or pronation of the hand. Crepitation of a marked and peculiar character comes on sooner or later, and is elicited by the motions aforesaid or by ab- and adduction of the metacarpal bone of the thumb.

Prof. Gross, in his *System of Surgery*, speaks of an analogous condition under the head of "Painful Crepitation," but fails to make any allusion to these particular cases, or indeed to mention these muscles. He very aptly illustrates the crepitus as being not unlike the creaking of snow under foot on a very cold night, or to that produced by rubbing grains of coarse starch between the fingers.

It generally attacks the miner a short time after resuming work succeeding a period of idleness. There is

seldom much discoloration of the integument, but the swelling is sometimes very marked, making a roll of considerable magnitude, which passes diagonally across the lower third of the forearm on its radial side from above and somewhat outside the radius downwards and upwards.

The pathology of the case is not exactly known; there never having been an opportunity to verify by *post-mortem*, but there can be but little doubt that a thecal inflammation exists with inflammatory exudation and roughening of apposed surfaces, wherein is derived the crepitus. The person affected generally quits work and applies energetic measures of treatment. Some few, however, have the fortitude to continue. Both alike recover. The prognosis is good. I have never known a case to assume a subacute or chronic form, to leave weakness or irritability of the parts affected, or to entail a susceptibility to a return of the affection. There seems to be no relationship between it and rheumatism, gout, syphilis or any known dyscrasia or specific malady.

Treatment: rest, a nicely adjusted bandage, soap liniment. The time required to affect a cure is from seven to fourteen days.

It may be questioned why miners are more obnoxious to this disease than other working men. It is simply because of the peculiar motion in handling the pick, and more especially in the process known technically as "bearing in," when he cuts his way under the face of the coal some five or six feet, and much of the time lies on his side and swings the pick at evident disadvantage. Other laborers, however, with the pick, ax or hammer, are also occasionally affected, and I am informed by Dr. Halderman, physician at the Ohio penitentiary, that it is not infrequent in some of the workshops of the institution. I am informed by my brother, Dr. Charles F. Gilliam, that a kindred affection exists among nail feeders; that it is, in fact, much more common among them than the miners. It comes on under similar circumstances, and pursues a similar course, but differs in this particular: the muscles themselves are not involved, but it is confined to the tendons and theca about the wrist. It is much more univer-

sal, involving all or nearly all those concerned in pronation and supination. It often leaves permanent disability.—*Ohio Medical Recorder*.

CASE OF INTESTINAL OBSTRUCTION BY A DIVERTICULUM VERUM OF MECKEL.—A male child, aged five years, had, since six months of age, been subject to repeated attacks of violent colic. During the last year of his life he had several attacks, which were treated by different physicians as verminous colic, by means of *santonine*, etc. The exhibition of this drug was constantly followed by the passage of *lumbricoides*. At other times no physician would be called; *tr. opii. camph.* would be given by the parents, to be followed at longer or shorter intervals by relief. These attacks always came on suddenly, while the child was in the midst of his play, and after periods of suffering, the pain would as suddenly subside. None of these attacks had been accompanied with vomiting, that I could learn, but he would be cool and bathed with sweat.

On Tuesday morning, April 16th, he was attacked with great violence. A physician was called, who, on learning the history of the previous attacks, diagnosticated worms, and gave *santonine*. Several powders were left, combined with sulphate of magnesia, to be repeated from time to time. All these doses were vomited. There was no remission of symptoms during the day.

On Wednesday morning the patient was again visited, and morphine given to quiet pain. The vomiting increased, and at six P.M., thirty-six hours after the attack, I saw him. He was sitting half erect in the bed, and could not lie down, because it increased the pain. The pupils were dilated, the features pinched, and he vomited soon after I entered the room, a dark, grumous fluid, looking like a diffuse blood-clot, only darker. The skin was cool, and the arms and hands cold to the elbows and cyanosed. The breathing was shallow and humid. The abdomen was distended and extremely tender on the right side of the umbilicus, and in this region a tumor could be made out on pressure, such as could be tolerated in this region. On the left side of the umbilicus there was

scarcely any increased tenderness. After a careful review of the symptoms, I diagnosticated an internal strangulation to the right, and below the umbilicus. I did not think it could be intussusception, because there had been no discharge of blood and mucus from the bowels; and, second, the onset of the case and its progress had been much more rapid than is ordinary in such cases. I located the stricture in the small intestine at its lower portion, because the abdomen was greatly distended. The vomited matter was bloody and non-fecal. The abdomen would have been flat, and the vomited matter of a bilious character, if the stricture was high up. The absence of fecal matter showed the large intestine was not involved. Sometimes fecal matter is formed low down in the ileum, which would then cloud the diagnosis.

I directed the continuance of the morphine, and the use of injections, with small pieces of ice to relieve thirst. Prognosis, fatal. The child died at ten o'clock, P.M., four hours later.

Autopsy at 4 P.M., Thursday, eighteen hours after death. Present, Drs. T. W. Jones, N. R. Coleman and H. L. Agler, and George H. Colville, a medical student. *Rigor mortis* slightly marked, the abdomen beginning to be discolored from advancing decomposition. The abdomen was opened by a crucial incision. On reflecting the flaps, the bowels on the right side were almost black with scattered gangrenous patches, while those lying to the left of the median line showed all conditions, from a condition of health to the intensest congestion—as they lay near the umbilicus. A diverticulum arose from the right side of the umbilicus and one half an inch below, and was inserted into the ileum, about two feet from the ileo-cecal valve, opposite the insertion of the mesentery. Where the diverticulum was joined to the ileum there was a projection, of a cone shape, which was made up of all of the coats of the intestine, one inch in depth. To the point of this cone the ligament, which passed from the umbilicus, was inserted. This ligament was hollow for three-fourths of an inch, and on examination showed the remains of blood vessels therein. This latter circumstance showed that

this ligature which caused the strangulation, was the remains of the omphalo-mesenteric artery of fetal life. Into a loop formed by this structure and the bowel, the intestines had passed from below upward. The loop was drawn tightly, and strangulation was complete. The calibre of the bowel above the stricture was greatly enlarged, while below it was small. The bowel was filled to a considerable extent with bloody matter, similar to what the child had vomited. The omentum did not enter into the stricture, for it was so short it did not reach so low.

As an incidental circumstance, I may mention that as a section of the intestine was made to remove the specimen, several dead lumbricoides escaped.

Remarks.—1. The autopsy accounted for the frequently recurring colics of this child, on the supposition that slight strangulation would occur at times which would be reduced by the movements of the bowels.

2. It revealed the cause of strangulation, which placed in its most favorable light the value of the operation of laparotomy. The diagnosis was complete, as the *post-mortem* showed, and an earlier recognition would have given the only chance for relief by an operation. The division of a bridle not larger than a crow quill, would have relieved the stricture, without any annoying search.

3. It placed in clear relief the utter hopelessness of all medical means.—*Ohio Medical Recorder.*

RHEUMATOID INFLAMMATION OF THE JOINTS IN WOMEN.—It has occurred to me on several occasions to observe an affection of the joints, which, from the definite character of its symptoms and course seems to deserve a distinguishing name. From the fact that the condition of the articulation attacked resembles very much that of acute rheumatism, I think that the term "Rheumatoid" may aptly be applied to the disease. It should at the same time be remembered that I do not desire to imply that it is in any way connected with so-called chronic rheumatic arthritis.

Most of the cases I have seen have been admitted into the medical wards as suffering from some form of rheumatism. I cannot recollect having ever seen a joint disease

in the male exhibit the symptoms which I am about to describe. In all the females, on the other hand, whom I have seen suffering from this affection, it has been associated with some uterine or vaginal irritation.

Case 1.—About ten years ago, when I was house-surgeon at Guy's Hospital, I was asked by one of the nurses to see her daughter, who had been recently married, and had got a bad elbow. The girl was about twenty years of age, and in the third or fourth month of pregnancy. Her right elbow was red, much swollen and acutely painful. She had had no injury to the joint, and I forget to what she attributed her trouble. I quite expected that it was about to suppurate, and was much surprised when after watching it carefully for two or three weeks, I saw the inflammatory symptoms gradually subside. Finally she got well, but was left with considerable stiffness of the elbow.

Case 2.—A woman, aged twenty-two, came to me as an out-patient in March, 1873, with the following history: She had been married three and a half weeks before. Three days afterwards she was at Woolwich Gardens, and was there exposed to cold. Soon after she noticed pains in her left hip, then "rheumatics" in her right arm, which had been bad ever since. The swelling, however, had only been considerable for about five days. There was redness and œdema of the whole of the right arm down to the fingers. It was especially large at and above the elbow, and in this situation it was very tender. I could feel no fluctuation, and I could not detect any cord-like induration along the course of the veins, in support of my first impression that she was suffering from phlebitis. Her general health was good. She was kept lying down with the arm swathed in cotton-wool, and in five or six weeks the swelling had gone, but the joint remained very stiff. Nine weeks after I first saw her she could only move the elbow through about ten degrees. I then used force to break down the adhesions, and I cannot say whether she ultimately recovered the full use of the arm, as she ceased attending. In this case I have no record as to pregnancy or leucorrhœal discharge.

Case 3.—In July, 1874, S. W., twenty-one years of age,

was admitted into the hospital two months after her marriage, suffering from a swollen knee. Four or five weeks previously she had noticed pain in that joint; then her right shoulder had swelled. Finally the left knee, which had recovered, became so painful that she could not walk. Her ankle also had been swelled for a short time. On admission the right knee was two inches larger than the other, and very tender. The skin over it was reddened. She was unable to bend the joint, and passive movement was very limited. Her catamenia were regular. After five weeks' treatment, with rest and a splint, she went out, able to walk about fairly, but still rather lame from stiffness of the joint. While in the ward she had two or three attacks of severe abdominal pain, but I can find no facts to indicate whether this was of an ovarian origin, or from any other cause.

Case 4.—H. J., aged twenty-five, married four years, was admitted on 4th December, 1875, nearly a month after the birth of her second child. One week before her confinement the right knee had become swollen. She thought it was "the rheumatics." The right shoulder and carpus became also painful, and in the latter there was redness and swelling. She had to go to bed, and one week later she had an easy delivery, but suffered greatly at the time from the pain in the knee. When I saw her the knee was still red and swollen, and had become stiff in the bent position. I had to straighten it under chloroform, and she went out able to walk with a stiff but straight knee.

Case 5.—In March, 1877, I was asked by one of our physicians to see M. W., who was suffering from inflammation of the ankle-joint, which was thought to be of a strumous character, and likely to suppurate. She was twenty-two years of age, and had been married nine months. About three months before she had been an out-patient under the Obstetric Physician, suffering from some difficulty in retaining her urine as she walked about. It was then noticed that she was pregnant. A little later she again was attended with some vaginal discharge. Three and a half weeks before admission, pain came in her left hand, and three days after her left foot became swollen and painful.

She then took to her bed. When I saw her she was in the sixth month of pregnancy. Her left ankle was very tender, red and much swollen. Fluctuation could be felt about the inner malleolus. There had been a good deal of feverishness, but her temperature was then but little above normal. She was kept in bed and a conium poultice applied. In a week the redness went away. The ankle was now kept at rest by means of a splint. In five weeks the tenderness and fluctuation had disappeared, and she went out well, with the exception of stiffness of the joint, for which, about four months later, she was again for a short time under treatment without much benefit.

Case 6.—E. B., aged sixteen, unmarried, was admitted into a medical ward in May, 1877. She had been in service, and four days before her admission the attack had begun with slight shivering, followed by a pain in the right elbow. The shoulder of the same side and the other elbow were also for a short time affected. On admission there was slight feverish disturbance, but her temperature was never observed to be higher than 100 degrees. Twelve days later I saw her, and found the right elbow much swollen, hot, painful, flushed, but not fluctuating. There was also œdema to some distance from the joint. The condition of the joint led me to suspect a vaginal or uterine cause, and I made some inquiries, which elicited that she was in the fourth month of pregnancy. She was transferred to a surgical ward and remained under my care about six weeks. The redness and swelling slowly subsided, but the joint remained stiff. From time to time I broke down the adhesions, but she still found movement painful, and she had but little power in her elbow when I last saw her. I may add that she told us her father was rheumatic, and also that in the medical reporter's notes of her case I find that a systolic bruit was noticed at the base of the heart.

To these notes I might add a case of inflammation of the carpus, followed by stiff wrist, in a pregnant woman, and also two cases of inflammation of the same region in women in whom I could find no other cause than obstinate

leucorrhœa. I might also include several cases of joint affection of a similar character following parturition. These, however, may be said to belong to the class of pyæmic inflammations, so I prefer to omit them, although I conceive that they should usually be placed in the same category with the cases which I have just narrated.

I would submit therefore that there is a definite joint-disease characterized by great pain and tenderness, and more especially by redness and œdema of the soft parts in the neighborhood. It is accompanied in the earlier stages by febrile disturbance, which, however, I have never noticed to be considerable. Usually a mild attack is noticed in other joints before the inflammation, so to speak, concentrates itself in one particular locality. The diseases with which it may be confounded are erysipelas, phlebitis, or acute suppuration of the joint. In the latter case the mistake might lead to serious consequences. The surgeon might be induced to make a free incision, and thus convert an inflammation which would have undergone resolution into a lingering suppuration. From most cases of erysipelas the absence of vesication and a high temperature would form sufficient means of discrimination. From phlebitis the absence of the cord-like induration of the veins would probably enable us to diagnose it, although the œdema in some of my cases resembled very much that which accompanies thrombosis. If I may form an opinion from the limited experience I have had, the prognosis is so far favorable in that the inflammation will probably go away without suppuration. The joint will, however, remain more or less bound by fibrous adhesions; so the patient must expect some impairment of the usefulness of the limb. As I have never had an opportunity of examining the condition of the joint after death or amputation, I cannot speak with confidence upon the pathological character of the affection. Judging from the absence of fluctuation in most of my cases and the presence of superficial œdema, I have been led to think that the chief seat of inflammation is in the fibrous capsule of the joint rather than in the synovial membrane. If the latter had been primarily affected I should have looked for effusion

inside the articulation, and consequent fluctuation, as in the ordinary form of synovitis.

With respect to the causation of the disease, it will be observed that in all the cases reported or mentioned there was reason to suspect uterine or vaginal irritation. Some had severe leucorrhœa; others were pregnant, and of these all but one for the first time. In two cases there was no statement as to pregnancy, but as they had been married a short time previously, it is probable that pregnancy, vaginal discharge, or frequent sexual congress was the source of irritation.

I have said before that I have not seen such a disease in the male. The only exception I would make to this statement is in the case of carpal and tarsal disease. Here there is often much redness and œdema as well as acute pain, and such inflammations, without suppuration, are not infrequent in the gouty and rheumatic of both sexes. Moreover, I have never seen a case of joint affection like those I have narrated in the female, except where there was evidence of some vaginal or uterine irritation.

It may be alleged that these inflammations are merely examples of gonorrhœal synovitis in the female, and I am disposed to admit that there is some alliance between the two affections in respect to their reflex origin through the nervous system. In the male, however, we rarely see any other joint affected than the knee, and the disease resembles synovitis. In the women whose cases I have narrated, the elbow was quite as often affected as the knee. There was, moreover, great œdema and redness, with little, if any, effusion into the joints. The subsequent history was also unlike what is observed in gonorrhœal rheumatism. I cannot lay much stress upon the absence of a history of vaginal discharge in most of my cases, as probably no questions were asked upon that point, and even if there had been, the answers would not be reliable, unless an examination had been made.

If it is supposed that there was some vaginal discharge in each of the cases, which give rise to the joint inflammation, it can hardly have been an accidental coincidence that so large a proportion of them should have occurred

in pregnant women. I cannot find that works upon midwifery make any mention of the liability during pregnancy to such affection. Nevertheless, the facts which I have brought forward seem to show that pregnancy either directly caused the inflammation by some influence reflected upon the vaso-motor system, or indirectly assisted in its development in a patient suffering from gonorrhœa or leucorrhœa, by the debility due to the pregnant condition.—*Obstetrical Journal.*

DISTINCTIVE LISTS OF AN INSANE AND SANE DELUSION.
In an indictment for murder, against Alfred Jones, recently tried in the court of Licking county, Ohio, being employed as an expert in regard to the sanity of the defendant, I was led to study somewhat closely what constitutes an insane delusion. The result may be of interest to your readers, some of whom will undoubtedly be called at some future time to testify on the same point.

The circumstances of the case are briefly these: Alfred Jones, aged 72, lived in a secluded dell with an only daughter, aged 42, of irreproachable character. He was a narrow-minded, uneducated man, of good character in every way, except that he was reported to have been violent and abusive to his children, any disobedience on their part exciting him to an immoderate degree. He became possessed with the notion, a year or two ago, that his daughter was unchaste—that she went to church to meet bad men, and when she left the house for any purpose, he always watched her, on the supposition that it was to meet a paramour. On one occasion, on her return from a ravine near the house, he accused her of the suspected vice, and in a paroxysm of fury seized a hatchet, struck at her, which she warded off, then ran from the house, the father pursuing until he overtook her, and struck her repeatedly on the head, until she was dead. He gathered up his effects, put her clothes in order on the spot where she fell, came to Newark and gave himself up to the sheriff to be executed, as he said he had committed an awful crime, and was a law-abiding man. He gave a perfectly truthful account of the unwitnessed killing to the

sheriff, as was subsequently verified. The plea of insanity was entered in defense, of which there was no evidence, except in regard to the delusion as to his daughter's chastity. That it was a delusion, either wilful, malicious, or insane, there could be no doubt; all the witnesses testifying that she was never suspected of unchastity, nor had shown any cause for it to any one, save in the imagination of her father, and even he had to admit that he had never seen any overt act on her part. The principal point in the case turned upon this delusion and the manner in which this might affect the premeditation of the act.

In my testimony I gave four points by which a sane delusion may be known from one that is insane. In no work on Medical Jurisprudence have I met with any clear distinction or test as to what constitutes a healthy or sane delusion from one that is insane or diseased. Only by an attentive study of this subject, and from considerable familiarity with monomaniacs, was I enabled to point them out. As they may be of service to other experts, I proceed to give them.

1st. A man must be compared with himself in order to judge aright as to his soundness or unsoundness. In illustration, look at a ruddy-faced active, athletic person, and then at another who is thin, pale and angular. On the face of things, the mind is ready to decide that the former is a healthy man, and the latter a sickly one. Yet if the latter be questioned he may truthfully say, I am perfectly healthy—there is nothing the matter with me; but if the ruddy, athletic person becomes pale, thin and angular, then the judgment that he is not healthy can scarcely fail in correctness. Precisely so is it with the mind. Has it markedly departed from its wonted or former self? Has the disposition suddenly changed, or have life-long traits of character taken a sudden, unaccountable, and new departure? If they have, then that is one of the evidences that the change is a morbid one.

2d. A sane delusion does not grow—does not increase except by increments of evidence; whereas, the insane delusion, particularly in the old, is apt to grow, and wholly irrespective of fostering external circumstances. In other

words, the increase of an insane delusion does not depend upon the accumulation of facts, or upon external circumstances for its increment, but upon the morbid condition of the internal nervous structure for its certainty, persistence and intensity.

3d. An insane delusion differs from a sane one in this: the subject of it exhibits more earnestness, vehemence, or exaltation as to it, than on any other subject. When it is touched upon, it is like touching upon the periphery of a diseased nerve. His best friends, those in whom he has the strongest confidence, and the strongest evidences cannot convince him of his error; and whenever he speaks upon the subject pertaining to his delusion, it is with an earnestness, an unreasonable vehemence, which he exhibits on no other subject.

4th. The insane delusion is more persistent than the sane. A man may imagine on one day that he is coming to poverty—that he has lost all his friends, but in a day or two the delusion is dissipated. Not so with the insane delusion. It persists for weeks, months, or years, in variable intensity, and no amount of evidence, no assurances are sufficient to overcome it.

Now, when these are all present in any given case—when they are clearly proven by the evidence, I think there need be no hesitancy in pronouncing the subject insane; diseased in mind, irresponsible for his false belief, and for his actions grounded on that belief.—*Ohio Medical Recorder*.

GASTRIC ULCER.—Through the kindness of Dr. J. M. Stevenson, I was present at the *post-mortem* examination, and I am indebted to him for the notes of the following case:

Mrs. J. B., aged 55, widow; mother of six children; always healthy, except habitually constipated. Was called to see her on February 12, 1877. Suffering pain in stomach and flatulence after eating. Had several times vomited a thin, whitish water, which did not smell sour nor appear gluey or ropy. General health not affected.

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Prescribed for functional disease of stomach consequent on constipation.

February 19.—Reports herself relieved of all pain and vomiting, and feels well. Prescribed a glass of Carlsbad water every morning before breakfast, and care in diet.

July 30.—Had a slight chill and now some fever. Has had several loose stools, and has voided mucus stained with blood, attended with griping pains and tenesmus. Prescribed for slight dysentery: magnesiae sulph., acidi sulph. aromatici et tr. opii.

August 3.—Reports herself as feeling entirely well.

January 24, 1878.—Reported through a neighbor that she was again vomiting whitish water. Prescribed bismuth, pepsin and opium.

January 26.—Reports no relief. On calling to see her, she reports her health as having been fairly good since the attack of dysentery. A good appetite, partaking of the same food as the rest of the family, except fruits and sour things, which swelled her stomach and caused pain; had had no return of vomiting or pyrosis until the first of January. Within the past two weeks could take no solid food, on account of it causing pain. She appears as well nourished as in July, and has no cachexia to indicate organic disease of any nature. Tenderness on pressure over epigastrium. Bowels have not moved for four days. Suffers from thirst. Tongue heavily coated. Prescribed creasote, hydrocyanic acid, and morphia, and ordered enema of castor oil and turpentine.

January 27, 9 A.M.—Vomiting ceased since taking first dose of medicine; but bowels have not moved, although irritating enema was followed by a quart of soapsuds. Enema did not come away. Ordered eight ounces of English black draught, one-third to be taken every four hours, unless bowels moved.

January 27, evening.—Not so well. Enema retained. Abdomen slightly tympanitic. Thirst and nausea, but no vomiting. Expression anxious. Tongue heavily coated with a dirty-yellow fur. Pulse 90; temperature $100\frac{1}{2}^{\circ}$. Suspected obstruction of the bowel. Ordered hot linseed poultice to abdomen, and a pill of morph. sulph. et ext. belladonna aa gr. $\frac{1}{2}$, every four hours.

January 28.—Expresses herself as better; free from pain. Had slept several hours. General appearance the same. Tympanitis increased, and more general tenderness over abdomen. Introduced rectum tube, through which the enema slowly flowed away. Carried the tube up about twenty inches, when it was arrested; through it, by means of a siphon syringe, injected five pints of warm water, when it began to flow out by side of the tube. Continued pills and poultice.

January 28, evening.—Condition much the same. Enema has not come away. Treatment continued.

January 29, morning.—She feels better; slept four hours at a time. Pulse 90; temp. 100°. Abdominal distention slightly increased. Tenderness only slight. Great thirst. Bowels not moved. Evening—no change.

January 30, morning.—Feels better; thinks she voided some flatus. Symptoms all seem more favorable, and indicate a yielding of the obstruction.

January 30, evening.—Patient moribund. They report that about 10 A.M. she asked to be raised up in bed, and drank some mutton broth, when she suddenly became faint and went into a collapse. Died at 8 P.M.

Autopsy, 19 hours after death.—Body moderately emaciated; rigidity slight. Abdomen prominent and tympanitic. On section, evident peritonitis, but slight and recent. Lymph effused, and gluing more or less tightly intestines and abdominal contents. The small and large intestines to the termination of the transverse colon fully distended with gas, and from this point the descending colon and rectum were collapsed. The obstruction was apparently bands of lymph constricting walls of colon, but hardly sufficient to have caused permanent constriction, as on pressure the gas in the upper intestine was forced through. On raising left lobe of liver, a mass of straw-colored lymph was seen, and in the middle of the lesser curvature of the stomach was noticed an oval opening about four lines in diameter, the peritoneal covering having evidently been destroyed some time, and the contents of the stomach having been prevented from escaping by its adhesions to the left lobe of the liver. On opening

the stomach, an elliptical ulcer, about an inch and three-fourths in its long diameter, was found on the lesser curvature, corresponding to external opening observed. The walls of the ulcer were three-quarters of an inch thick, and the adjacent coats of the stomach infiltrated with cellular deposit. The stomach opposite the ulcer was slightly congested, and the whole calibre of the organ apparently diminished in size.

This case is markedly interesting from its negative history, having never arrested especially the attention of the patient nor presented any symptoms from which a diagnosis could have been definitely determined. Again, it is interesting from the fact that the adhesions for a time prevented death, and at last caused it. Those forming a new floor prevented extravasation; but those gluing the coils of intestines together, and obstructing their functions, caused accumulation of gas and distention of transverse colon and upper intestine, which, by alteration of the relation of the parts, caused the new adhesions of the stomach and liver to give way on the patient being raised up.—*Philadelphia Medical Times*.

HINTS ON THE HYPODERMIC USE OF MORPHIA.—A death occurred not long since in Washington City from the hypodermic injection of the third of a grain of sulphate of morphia, in the case of an adult laboring under pneumonia. A distressing cough had led to the administration of several doses of Dover's powder during the day, which failing to give relief, the morphia was introduced in the evening. Narcosis speedily ensued, and in spite of well-judged antidotal efforts, death followed in a few hours. The patient had frequently used opium and morphia with no bad effect.

This is not the only instance that has come to my knowledge of death attributed to the hypodermic injection of morphia. Some years ago a prominent individual in one of our California cities lost his life under similar circumstances; and the event threw so much discredit on the hypodermic use of morphia, that the practice has been almost abandoned in that locality. I have heard

of similar occurrences in the Atlantic States, with the same effect of discouraging the plan of treatment. As a question in therapeutics, it is well to inquire how far such results should deter from the practice. That there are exceptions, and rare exceptions, to the general rule, will not be disputed. Doubtless the fatal result has been due in some cases to certain conditions of the brain, lungs or heart. The instance to which allusion has been made as occurring in this State, was ascribed to the cardiac disease under which the patient labored. I have known another instance of death succeeding the injection of about the third of a grain, the patient having some cerebral disorder, which seemed to be developed into apoplexy by the treatment. In the Washington case, the lungs were the vulnerable point through which the toxic action was brought to bear on the brain. But the probability is that in a small number of exceptional cases, the hypodermic injection of a full dose of morphia, say from one-third to one-half grain, will produce a fatal result, when no explanation can be given. The same thing is known to happen from opiates given by the stomach. So the inhalation of chloroform, and even of ether, will occasionally kill, without possible explanation. We talk of idiosyncrasy in such cases, and there we must stop. To throw away a valuable remedy or plan of treatment because of such rare fatalities, were irrational. There are many conditions of serious disease which can be relieved in no other way, as promptly if at all, as by injecting morphia beneath the skin. The practitioner who discards the process entirely, runs the risk of death to his patients fifty times that he may avoid a single risk.

As to the dose, it is not worth while to attempt to relieve severe pain with less than from one-third to one-half grain. Writers mention the eighth of a grain as the ordinary quantity; but my experience is that this small quantity is very inefficient and unsatisfactory. Those who limit themselves to so small an amount, will fail so frequently as to induce them to abandon the practice. I add a few hints which some of my readers may find useful, even though they may not be new:

1. Avoid it in congestion and inflammatory conditions of the brain.
2. Avoid it in pulmonary congestion, and where dyspnea is not the result of spasm.
3. Avoid it in acute inflammatory affections of the heart and pericardium.
4. Avoid it in high febrile excitement.
5. Avoid puncturing a vein. The effect of introducing morphia into a vein is instantaneous. It is possible that the evil results were due in some cases to the entrance of the narcotic into a small vein—so small and deep as to escape observation.
6. Avoid a deep puncture, unless there is a special purpose to be accomplished by depositing the narcotic deep in the tissues.
7. Introduce the liquid slowly and not by sudden projection, as is sometimes done. Spend four of five seconds in driving the piston home.
8. Require the patient to lie down and remain quiet after the operation. There is some risk in moving about, independently of the nausea which follows. The syringe should be used in the patient's chamber, and not in the doctor's office.

I may add, in regard to the appliance in cardiac cases, that, according to my experience, there is no condition of human suffering to which it is more applicable than in the orthopnea of cardiac asthma. In fact, it is the remedy, *par excellence*, for the paroxysm of spasmodic asthma, from whatever cause.

By observing the foregoing cautions, I think the risk of injury from the hypodermic use of morphia will be reduced to a minimum, whilst the physician will be armed with an instrumentality for the relief of pain, the value of which is beyond calculation.

A singular phenomenon, which I am not able to explain satisfactorily, has come under my observation in some exceptional cases, namely, the aggravation of pain immediately after the injection. The patient complains that the pain is suddenly augmented, say in twenty or thirty seconds after the injection; but the aggravation is

brief, passing away in less than a minute, and is succeeded by the proper action of the drug.

Another effect is much more common—a distressing sensation which takes the place of the pain, and causes the patient to complain that he, or more frequently she, feels as if dying. “I feel as if I was dying,” is the expression. It is the stepping-stone, so to speak, between pain and hypnotism. It lasts only for a fraction of a minute, and vanishes with the accession of the hypnotic stage. I confess to a feeling of anxiety whenever it occurs, and am careful to require the patient to keep quiet in the horizontal posture.—*Pacific Medical and Surgical Journal*.

JABORANDI AND ITS ACTIVE PRINCIPLE PILOCARPINE.—Jaboranpi has been used in this country and in Europe during the last four years to a considerable extent for its diaphoretic and sialogogue effects. But, remarkable enough while the preparations used have given entire satisfaction in the hands of many, severe complaints about the uncertainty of their action can be heard from others.

Can the difference in the action of—in my opinion—so valuable a drug be satisfactorily explained?

In Brazil where jaborandi has been used as a diaphoretic and—according to trustworthy reports—as a diuretic long before we knew anything about it, the leaves of the following plants are known as “Jaborandi:” piper jaborandi (Willdenon) Serronia jaborandi (Guillenica) Monniera trifolia (Aublet) and Pilocarpus pinnatus.

Who would expect to find that these different plants, which do not even belong all to the same species, possess exactly the same properties?

I have used the leaves of Pilocarpus pinnatus, the fluid extract made of them, and last, but not least, the active principle Pilocarpine in its combination with hydrochloric acid, known as hydrochlorate, or muriate of pilocarpine. I have found the action of jaborandi and its preparations in a great majority of cases reliable, quick and decided, and I do not hesitate to say that I consider jaborandi—derived from pilocarpus pinnatus—as the most powerful diaphoretic and sialogogue known at the present time.

The unpleasant disturbances, such as vomiting, headache, dizziness, fainting, colic, etc., are occasionally found to be produced by it, might be expected from such an active remedy, but, aside from slight gastric disturbances, I have never found any unpleasant symptoms to occur.

If I employ the leaves, I do it in the form of an infusion, which is prepared in the following way: Half an ounce of the leaves is coarsely powdered, and ten or twelve ounces of boiling water is poured over it. The infusion is kept at a temperature somewhat below the boiling point for about 15 minutes and strained. Of this I administer a small teacupful (warm) every two hours, and in the majority of cases I obtained good diaphoresis about ten minutes after the administration of the first dose. Of the different preparations of jaborandi which I have employed I obtained, generally speaking, the least satisfaction with the infusion. Nausea, vomiting, and sometimes headache, accompanied or followed in some cases the diaphoresis produced by the administration of the infusion of jaborandi.

The fluid extract which has probably been most frequently employed, has given entire satisfaction in all cases of adults. I employ the following simple formula:

R.—Ext. jaborandi fl (pilocarpus pinnatus)

Syr. simplex, aa ʒ ss.

MS. Teaspoonful at 2, 4, 6 and 8 p. m., and 8 and 10 a. m., 12 and 2 p. m. the next day.

The patient is to be kept in bed, well covered, and from 8 to 10 minutes after the administration of the first dose, its diaphoretic action takes place. After the second, and third dose, the diaphoresis is at its height. The flow of saliva commences according to my observations always after the diaphoretic action has begun, although it has been stated by others that the sialogogue influence of the drug becomes apparent before its diaphoretic action can be observed.

I advise the patient to be careful not to swallow the saliva, but to let it run from the mouth, and found with this little precaution that vomiting does not generally occur; if at all, it takes place with the 4th and 6th or 7th dose. Other disturbances I have not observed.

Hydriehlorate of pilocarpine, derived from the alkaloid found by E. Hardy in the leaves and in the root of pilocarpus pinnatus, is in many respects the most valuable of the preparations of jaborandi. It comes in small white crystals, very soluble in water, and is for different reasons especially adapted for hypodermic medication. Its action resembles that of the drug itself, but is more uniform and reliable than either the infusion or the fluid extract. It also influences the bronchial secretions by making them more fluid, and it has been used with advantage in croup, bronchitis, etc. A solution is made by dissolving $\frac{1}{2}$ grain of hydrochlorate of pilocarpine in 30 minims of pure water. I use in cases of children from 6 to 10 years of age, 10 mins. of this solution, 1-6 gr. hypodermically and repeat the injection once or twice the next or following day. To adults I have given 20 mins. ($\frac{1}{2}$ gr.) repeated every day for three days.

The simplicity and almost painless manner of its administration, the fact that its hypodermic use does not cause any irritation, or abscess at the point of injection, the easy manner by which we are able to administer it in a state of uræmia, unconsciousness, during convulsions, etc., make it a most valuable remedy in the treatment of children. I used it in five cases of parenchymatus nephritis following scarlet fever, four of which occurred in children under 12 years of age, and I can only state that its action was very satisfactory, although it produced considerable vomiting in one and moderate emesis in another case.

Jaborandi deserves further trial and will be found of good service, when properly used, in cases of parenchymatus nephritis, general anasarca, pleurisy, bronchitis, etc. Prof. Marmel Gottingen, states: atropine, in small doses, arrests all action of jaborandi, while large doses of pilocarpine cannot overcome active doses of atropine.—*Hospital Gazette*.

Editorial.

We devote our entire editorial space to the reports of the American Medical Association and Association of Medical Colleges, at Buffalo. It will be seen that the meetings of both for the year 1879 will be held in Atlanta, and we hope that the medical profession, not only in Georgia, but the whole South, will take a lively interest in the meeting here, commencing on the first Tuesday in May next.

AMERICAN MEDICAL ASSOCIATION.—The opening session of the twenty-ninth annual meeting of the American Medical Association was held at Buffalo, New York, Tuesday, June 4, 1878. The Association was called to order at 11 A. M., by the President, Dr. T. G. Richardson, of New Orleans. Prayer was offered, when the address of welcome was delivered by Dr. Thomas F. Rochester, of Buffalo. Prof. James P. White introduced President T. G. Richardson, of Louisiana, who delivered his annual address.

Professors White and Gross paid high compliments to the author of the address.

The speaker and his four predecessors were appointed to suggest means for carrying out the recommendations made.

Dr. Wm. Brodie, of Detroit, then read his report as a delegate to the Canadian Medical Association.

The report was referred to the Committee of Publication.

Dr. L. A. Sayre, of New York, made a verbal report of his visit as a delegate to the British Medical Association.

After some announcements, the Association adjourned.

Wednesday, June 5th.—The meeting was called to order by the President.

The following report was then offered by the Judicial Council:

The charges against Dr. J. M. Keller, presented by Dr.

G. W. Lawrence, were dismissed as being unworthy of any consideration.

The charges against the Society of Grand Rapids, Michigan, presented by Dr. P. J. Dwyer, are incomplete and unaccompanied by witnesses and testimony whereby the Judicial Council might be able to act.

The Arkansas petitions referring to the State Medical Society were dismissed without action.

The charges against the Michigan State Society, by Dr. W. W. Jones, will be reported upon by Dr. N. S. Davis, Chairman of the Judicial Council.

The charges against W. F. Barr, M.D., of Abingdon, Va., presented by Dr. Ulrich, of Chester, Pa., were dismissed by the Council.

With reference to the communication from the State Medical Society of Arkansas, notifying the Association that the Hot Springs and Garland County Medical Society was not recognized by the State Medical Society, and protesting against the reception of any member of that Society, it is decided that, under the by-laws of this Association, said Hot Springs and Garland County Society loses its recognition with the Association from date of its severance from the State Society.

Professor Davis then read the appended report of the Judicial Council concerning the charges against the Michigan State Medical Society, referred by the Association at the annual meeting in June, 1877:

The charge in this case was alleged violation of the code of ethics on the part of the Michigan State Medical Society in electing as a delegate to this Association Dr. E. L. Dunster, of the University of Michigan, knowing him to be engaged in aiding and abetting the graduation of students devoted to an exclusive dogma in medicine.

After a most careful examination of the code of ethics, as it has appeared in the transactions of this Association from year to year, the Judicial Council fail to find any section or paragraph in it that refers, even remotely, to the practice that constitutes the foundation of the charge under consideration. That any member of the medical profession proper should ever engage in teaching, exam-

ining and certifying to the qualifications of students, knowing that such teaching and examinations were to aid said student in obtaining a diploma directly admitting them into a few—a fraternity of irregular practitioners—was evidently not contemplated by the framers of our Code of Ethics; and hence they inserted no clause or section bearing upon that subject. The only provision in the Code referring to those engaged in an attempt to practice medicine in accordance with some “exclusive dogma,” is in the section regulating consultations at the bedside of the sick. If the Judicial Council of this national organization should assume that the section of the Code just referred to indicated the “spirit” of those who framed and adopted it, and on that assumption apply it to matters and practices entirely foreign to those mentioned in the doctrine itself, it would not only violate all the accepted principles of judicial construction, but would establish a precedent in latitudinous construction of the Ethical Code more dangerous to the best interests of the profession than all the evils sought to be remedied in the case under consideration.

It is true that this Association has adopted at different times two resolutions having reference to the subject involved in the Michigan State Medical Society, which still stand as expressions of opinion unrepealed. But these resolutions constitute no part of the Code of Ethics; neither is obedience to them enjoined by the constitution and by-laws on State and local medical societies as a condition of representation in this Association. Therefore, while deprecating the practice of aiding or abetting in any way the teaching and graduation of students known to be supporters of irregular and exclusive dogmas in medicine, as beneath the dignity of right-minded teachers of an honorable and liberal profession, your Judicial Council can find no clause in either the Constitution, By-Laws, or Code of Ethics, as they now exist, under which the charge against the Michigan State Medical Society can be entertained and adjudicated.

A discussion followed the reading of this report by Drs. J. M. Toner, N. S. Davis, S. C. Bussey, J. J. Woodward, Wm. Brodie, and Thomas Menees.

Professor Henry H. Jones, of Philadelphia, Chairman of the Section of Surgery and Anatomy, then delivered his address, taking for his subject, Certain Points on the Pathology of the Bones, especially Tubercle.

Dr. Moses Gunn, Vice President, took the chair, and Dr. E. W. Jenks, of Detroit, Michigan, Chairman of the Section on Obstetrics and Diseases of Women and Children, delivered an address on The Causes of the Sudden Death of Puerperal Women. It was referred to the Section on Obstetrics for publication.

Dr. J. H. Bronson, of Massachusetts, offered the following preamble and resolution :

WHEREAS, By the report of the Judicial Council, submitted this day, we are informed that the Ethical Code of this Association is imperfect, in that it does not recognize by its letter a conceded violation of the spirit of our profession in its relation to irregular medicine, therefore,

Resolved, That said Council be instructed to submit to this Association, at their meeting, for its consideration, an amendment to the Code covering this omission.

The above was, on motion, referred to all of the members of the Judicial Council as a committee.

Dr. Foster Pratt, of Kalamazoo, Michigan, offered a resolution in relation to the legal status of the insane, which was referred to the Section on Medical Jurisprudence.

Thursday, June 6th.—The general session opened with President Richardson in the chair.

Dr. N. S. Davis, of the Judicial Council, presented the following report, proposing an amendment and addition to the Code of Ethics, and action on the same was deferred, according to the rules, for one year :

In obedience to the instructions of this Association, the Judicial Council, acting in the capacity of a committee, have unanimously instructed me to report to your honorable body the following amendment and addition to Paragraph I, Article I, of the second division of the Code of Ethics, under the general heading, "Of the duties of Physicians to each other, and to the Profession at large," and the special heading, "Duties for the Support of Pro-

fessional Character." The same, when finally adopted, to be added at the end, and to constitute a part of said Paragraph I, of Article I. The proposed addition is in these words: "And hence, it is considered derogatory to the interests of the public and the honor of the profession for any physician or teacher to aid, in any way, the medical teaching or graduation of persons, knowing them to be supporters and intended practitioners of some irregular and exclusive system of medicine."

Dr. J. M. Toner, of Washington, D. C., Chairman of the Committee on Necrology, presented his annual report. It was referred at once to the Committee on Publication.

Dr. A. L. Loomis, of New York, Chairman of the Section on Practical Medicine, Materia Medica, and Physiology, was then introduced, and delivered an able address. He noticed some of the important advances made in practical medicine, physiology, and materia medica, and also discussed at length the climatic treatment of pulmonary phthisis.

Dr. Toner, of the Committee on Nominations, announced that they were ready to report. Accordingly, Dr. Hupp, of West Virginia, read the following, which was, on motion of Dr. White, of Buffalo, accepted and adopted unanimously:

After due consideration, the Committee on Nominations respectfully report that they have nominated the following gentlemen for the various offices named, to-wit:

President.—Theophilus Parvin, M.D., of Indiana:

Vice-Presidents.—A. J. Fuller, M.D., of Maine; W. F. Westmoreland, M.D., of Georgia; John Morris, M.D., of Maryland; John H. Murphy, M.D., of Minnesota.

Treasurer.—Richard Dungleison, M.D., of Pennsylvania.

Committee on Library.—J. Eliot, M.D., of District of Columbia.

Assistant Secretary.—Scott Todd, M.D., of Atlanta, Ga.

Committee of Arrangements.—J. P. Logan, Chairman; H. V. M. Miller, G. G. Crawford, H. L. Wilson, J. F. Alexander, J. M. Johnson, Charles Pinckney, V. H. Taliaferro, J. T. Johnson, of Atlanta, Ga.

Committee on Prize Essays.—Robert Battey, of Rome, Ga.;

J. G. Westmoreland, Wm. A. Love, Robert Ridley, of Atlanta, Ga.; Henry F. Campbell, of Augusta, Ga.; J. H. Van Deman, of Chattanooga, Tenn.

Next place of meeting, Atlanta, Ga.

Time of meeting, the first Tuesday in May, 1879.

Dr. J. L. Cabel, of the University of Virginia, Chairman of the Section on State Medicine and Public Hygiene, delivered an address.

On motion, the address of Dr. Cabel was referred to the section on Hygiene.

Dr. Sayre, of New York, then rose to a question of personal privilege, and asked that the Secretary be requested to place him on record as opposed to the resolution adopted at Detroit last year, which declared that a fracture of all long bones could not occur without shortening. The request was granted.

Friday, June 7th.—Dr. J. S. Hibbard, of Indiana, offered the following resolution, which was adopted:

Resolved, That hereafter it shall be the duty of the Committee on Necrology to confine their reports to the death of medical men who have been members of this Association, and at the time of death were still in good fellowship, or honorably separated from the Association.

Dr. A. N. Bell moved the continuance of the committee appointed two years ago, for the organization of State board of health. Carried.

The President announced the following delegates:

To European Medical Societies—Drs. Sims, Drysdale, Seguin, Daly, Halberstadt, Levis and Pancoast.

To the Canadian Medical Association—Drs. Brodie, Todd, E. N. Brush and W. Clarke.

Dr. X. C. Scott called up the resolution of last year, creating a new Section of Ophthalmology, Otology and Laryngology, to be known as Section VI, and moved its adoption. Carried.

On motion of Dr. E. Smith, of Detroit, Dr. H. Knapp, of New York, was made chairman of the new Section, and X. C. Scott, of Ohio, was made secretary.

The minutes of Sections II and V were received and referred to the Committee of Publication.

The Secretary read the annual report of the Treasurer, Richard J. Duglison, of Philadelphia.

The report was adopted and referred to the Publication Committee.

On motion of Dr. Davis, the Treasurer was instructed to pay the sum of \$700 as a honorarium to the permanent Secretary for his services.

The following report of the Committee on Prize Essays was read by the local Secretary and adopted:

Your Committee, to determine the merits of prize essays, would respectfully report: That they have had three separate papers submitted to their inspection. Two of these papers present subjects of very great interest, and show original researches, but are too imperfect, in the estimation of the Committee, to command a prize. The remaining paper, in the judgment of your Committee, is fully up to the requirements. Indeed, the paper is so elaborate as to fill a large space in the volume of the Transactions of the Association. The paper should be considered as *two* and not as *one*. The analysis of 789 cases of operation on the carotid artery, and the careful and minute measurements of the artery and its branches in one hundred and twenty-one subjects, showing the range of variation and the per centage of the same, followed by inferences, bold and original, naturally constitutes a paper complete in itself. Another one on the same plan, with reference to the innominata and subclavian, being an analysis of 300 cases, and the observation of fifty-two subjects, is presented to us in such a manner that we may consider the whole as one prize, or they may compete for both.

Your Committee believe that both prizes should be awarded to the two essays by one person. The motto is, "*Tempora mutantur et nos mutamur in illis.*"

E. H. MOORE, *Chairman.*

THOS. LOTHROP,

H. R. HOPKINS,

W. W. MINER.

Buffalo, N. Y., June 6th, 1878.

The recommendation of the committee was unanimously adopted.

On opening the sealed envelope, the name of the successful essayist was found to be Dr. John A. Wyeth, of New York City, and the announcement was received with applause.

Dr. J. M. Kellar, of Arkansas, offered the following, which was laid over for one year:

Resolved, That in the future the Committee on Nominations shall present the name of no person for appointment or election to office or position, save on the Committees on Necrology and Climatology, unless the party nominated be in attendance on the Association at the time.

Dr. J. J. Caldwell, of Maryland, offered a resolution creating a new Section upon "Neurology and Electrology." Action was deferred for one year.

Dr. Maddux, of Maryland, offered a resolution creating a Section on "Diseases of the Genito-Urinary Organs, including Dermatology and Syphilis." Laid over.

Dr. J. M. Toner offered a resolution in relation to the late Prof. Joseph Henry, of the Smithsonian Institute.

Dr. Parvin, the President-elect, introduced by President Richardson with a few complimentary remarks, returned his thanks for the honor conferred in eloquent and fitting terms.

Resolutions of thanks were then passed, and the Association adjourned.

THE MEDICAL COLLEGE ASSOCIATION.—The Association of American Medical Colleges met in the hall of the Buffalo Medical College, June 3, 1878. The President, Prof. J. B. Biddle, of the Jefferson Medical College, occupied the chair, and Dr. L. Connor, of the Detroit Medical College, was at his desk as Secretary.

The first order of business being the presentation of credentials, the following colleges were found to be represented:

Rush Medical College—Prof. Moses Gunn.

Jefferson Medical College—Profs. S. D. Gross and J. B. Biddle.

Medical Department University of Louisville—Prof. J. M. Bodine.

Detroit Medical College—Profs. L. Connor and E. W. Jencks.

Chicago Medical College—Prof. N. S. Davis.

Miami Medical College—Prof. W. H. Mussey.

Starling Medical College—Prof. H. G. Landis.

Medical Department of University of Nashville and Vanderbilt—Profs. T. Menes and W. T. Briggs.

Louisville Medical College—Prof. A. B. Cook.

Medical Department University of Iowa—Profs. E. F. Clapp, W. F. Peck, W. S. Robertson.

Kansas City College of Physicians and Surgeons—Prof. T. B. Lester.

Medical Department of Michigan University—Prof. E. S. Dunster and George E. Frothingham.

Missouri Medical College—A. P. Jantford.

Bellevue Hospital Medical College—Prof. A. Flint, Jr.

The minutes of the previous meeting having been published, the reading of them was dispensed with.

Objections against the admission of Howard University, D. C., to the Association, were then taken up, and after some discussion the objections were sustained, and the college refused admission by a vote of 12 to 2.

The Secretary presented a report, from which it is learned that there are twenty-five regular members and one affiliated member. Applications for membership had been received from the Ohio Medical College, March 26th, and Alabama Medical College, March 18th last. As soon as the report was issued last fall, a letter was sent to all regular medical colleges of the United States, asking if they conformed to the articles of confederation required of regular or affiliated members. Accompanying this letter was sent the pamphlet containing a history of the organization of the Association, its constitution, by-laws, articles of confederation, and list of members. Two colleges—Harvard, and the Medical Department of the University of Pennsylvania—replied that they regarded it unadvisable for them to join the Association.

Annual reports from the colleges were then received and read by the Secretary. These reports noted the honorary degrees conferred by each college within the year,

with the age and name of the recipient, and the reason why the degree was given. They also gave the names of all persons who had been allowed remissions or reductions of established fees, with the reasons in each case for the proceeding.

The Secretary also presented from the same colleges catalogues and advertisements issued by the same call as during 1877-78.

The following resolution was then offered by Prof. Flint, of New York :

Resolved, That the Secretary of the Association be, and is hereby directed, to furnish, one in each year, to each and every college member and to each affiliated college, a printed list of college members and affiliated colleges, the diplomas and tickets of which are to be recognized by the college members and affiliated colleges; and also to furnish to college members and affiliated colleges, a printed list of those colleges (not including irregular colleges) of the United States that are not affiliated, and that are not eligible for membership of the Association, the diplomas and tickets of which are not to be recognized by college members and affiliated colleges; and also to furnish with said list of colleges not to be recognized, the dates at which said colleges had become ineligible for membership of the Association, and after which the diplomas and tickets of said college are not to be recognized.

This was adopted with slight modification.

A resolution was offered by Prof. Flint, seconded by the College of Physicians and Surgeons in New York, to change the number of beneficiaries from five per cent. of matriculants to ten per cent. of graduates.

It was laid over one year.

AFTERNOON SESSION.

On motion, Profs. Davis, Flint and Gross were appointed by the chair a committee to consider the whole matter in relation to the classification of the medical colleges.

Prof. Gross, with a few introductory remarks, offered a series of preambles and resolutions contemplating a meeting, in September, of representatives at Washington, for the purpose of raising the uniform standard of medical education.

Prof. Davis, in seconding the resolutions, gave a history of the efforts made to improve college-instruction during the past twenty-five years. He thought that sentiment in and out of the profession had reached a point which called for the proposed advancement in medical education. He was in favor of having a three-years' course of instruction, of not less than eight months' duration per year, and no student could enter upon his duties in any college until he had given some evidence of preparation. He hoped to live to see the medical profession at the head of all science, where it belonged, and the adoption of the resolutions would be an important step in the right direction.

Prof. Gunn, of Rush College, was in favor of a three-years' course as the requisite to graduation of students.

The Secretary read a letter from Prof. Seely, of the Ohio Medical College, in which he spoke in favor of a full course. The Secretary also stated that he was of the opinion from the correspondence he had had, that a majority of the colleges were in favor of the full course.

Prof. Bodine offered an amendment in effect that the conference be under the auspices of the Association. After some discussion, the amendment was lost.

The Friday preceding the meeting of the American Medical Association next year was fixed as the day for the holding of the conference, and the preamble and resolutions were then adopted.

Prof. Flint offered a preamble and resolution in effect that the tickets and diplomas of the Nashville Medical College shall not be recognized by the Association so long as the institution gives two graduating courses a year, and accepts three years' practice in lieu of a course of lectures.

The election of officers resulted as follows:

President—J. B. Biddle, M.D.

Vice-President—N. S. Davis, M.D.

Secretary and Treasurer—Laertes Connor, M.D.

Dartmouth Medical College offered its resignation as an active member of the Association. The matter was laid on the table for one year.

The medical college at Ft. Wayne having been dissolved, and a new one organized, the application of the

latter to the place of the former was refused. The new organization was directed to send in its formal application as a new college.

The College of Physicians and Surgeons of Indianapolis, and the Medical Department of the University of Missouri signified their intention of applying for membership in the Association.

On motion of Prof. Gross, the thanks of the Association were tendered to the officers for the efficient manner in which they had discharged their duties.

On motion of Prof. Connor, the Association tendered its hearty thanks to the officers and faculty of the Buffalo Medical College for their courtesy in furnishing commodious rooms for the meeting of the Association.

The Association then adjourned, subject to the call of the President.—*Extract from Report of Buffalo Commercial Advertiser.*

EUROPEAN CORRESPONDENCE.

LONDON, May 25th, 1878.

Editor Atlanta Medical and Surgical Journal:

The last meeting, for this season, of the Harveian Society has just taken place, and the paper of the evening was by Prof. Lister, on "The effects of position upon local circulation." The Professor began by calling attention to the well-known fact, that if the hand is elevated above the head, the blood recedes from the limb; and the question arose as to the cause of this phenomenon. Was it gravitation pure and simple, or was some action of the vaso motor nerve concerned therein? He had performed two experiments to determine this point—vivisections. (The Professor was particular in saying that he had given the animals chloroform). In the first, an artery in the leg of a horse near the hoof was laid bare, and its size carefully measured with a callipers, under four conditions: first, with the legs dependent; second, with the legs horizontal, the animal lying on its side; third, with the legs perpendicularly upwards, the animal lying on its back;

fourth, the piece of artery was cut out and another measurement taken. Drawings of these to a scale were shown, and it was demonstrated that the area of the artery in the third position was not one-third that of the first, and very little larger than that of the excised vessel. The same experiments made upon the femoral artery of a heifer gave similar results.

A man was next brought forward, whose arm being held perpendicularly upwards for some minutes, became blanched and bloodless; not only this, but the muscles of the shoulder showed evidence of the same action. An elastic bandage was rapidly and tightly placed round the limb, close to the shoulder, and the hand was allowed to hang down for eight minutes; but at the end of this time it presented the same appearance as when first the bandage was applied. The arm being now elevated, the bandage was removed, and in a few minutes the circulation was re-established, not only in its original quantity, but it was absolutely increased, as shown by the heightened color when compared with the other hand, and the course of the returning circulation could be plainly traced in the limb.

Prof. Lister stated that he had employed this method as a substitute for Esmarch's bandage, and with most favorable results, as it avoids all danger of over-compression; and further, there is no possibility of forcing poisonous fluids from the diseased extremities into the adjacent tissues. Moreover, the small quantity of blood left in the limb, although practically unimportant, enabled the vessels to be more easily discovered and tied, and from this it resulted that secondary hemorrhage, so common with Esmarch's bandage, did not occur with this system.

These are the facts and the practical application thereof, and now comes the theory. The Professor considered that the laws of gravitation and of hydraulics, heretofore invoked to explain these phenomena, were totally inadequate for that purpose. That the power of the heart was sufficient to drive the blood into the upraised extremity, was proved by the blood being driven into the uplifted arm upon the removal of the bandage; and the heart of a

horse was found to be sufficiently powerful to raise a column of blood over eight feet high, which was more than double the distance from the hoof to the heart. It could not be the increased weight of the column, for the artery, at the lowest point, was found to be diminished in calibre as well as the vessel at the highest point; nor could the blanching of the muscles of the shoulder, and the subsequent great increase of vascularity in the previously blanched arm, be accounted for by this hypothesis. It might be suggested that the veins acted as a support, but it would be found that an easily compressible tube as a vein or piece of intestine could not act as a syphon.

Prof. Lister then put forward the theory that the action was due to the vaso-motor nerves, and illustrated his meaning by referring to the effect produced by plunging the hand into a vessel of ice water and then removing it—the first being followed by contraction of the vessels, which was succeeded by increased vascularity of the part. A similar phenomenon was observed after ligating an artery for aneurism, say the femoral, in which case the foot became cold, but subsequently the heat and redness were abnormally increased.

Other illustrations were brought forward, but these will suffice to give a general idea of Prof. Lister's theory.

In this day of more complicated invention, this already well-known system has been neglected as a means for performing bloodless operations, and surgeons will do well to act upon the timely and valuable suggestion.

A couple of days later I saw Prof. Lister perform a lithotomy, about which there was nothing remarkable but that he laid great stress on the value of thoroughly sponging out the wound with a solution of chloride of zinc, and not carbolic acid, as I suspected; but from the remarks of the Professor, I am led to conjecture that this choice is the result of clinical experience.

R. J. NUNN.

LONDON, June 1, 1878.

The most striking feature to a medical visitor to London is the utter absence of medical organization. True,

each great school or hospital is perfect in and within itself, but then when the medical material of this great metropolis is divided among a score or more of general hospitals, the facility to the student equals only that of a city of two hundred thousand inhabitants; and in addition to this, there exists another drawback in the immense draughts of cases to maintain special hospitals, of which there are many—fine institutions, unquestionably, but practically so much lost to the general student. Finally, to increase the difficulty, the operating hour is about the same in each of these institutions, i. e. about 1 or 2 o'clock, P.M., so that, practically, it is impossible to visit more than one hospital daily. But even if the hours were otherwise arranged, the immense distance at which they are situated from one another would still preclude the possibility of doing much more. This is most inconvenient, most unsatisfactory, and results from the extraordinary erratic manner in which too many things are done here. Hospitals spring up where they are not needed—through the short-sighted benevolence of misguided philanthropists or the energy of an aspiring physician—and the result is not only a fearful waste of medical opportunities, but frightful increase of expense. Here this condition of things will probably always continue. Personal ambition and other conflicting interests will ever preclude the possibility of any adjustment. The evil exists, and exist it will; but with us it need not be created, although there are symptoms of the same or a similar condition springing into existence in some of our larger cities.

I would advise the medical rambler to drop in at the Royal Orthopedic Hospital, on Oxford street, at 2 P.M., where twenty or thirty tenotomies of various kinds are usually to be performed, besides other operations in this specialty.

Contracting cicatrices are treated in this hospital by passing a stout wire through the base of the cicatrix. A head on one end and a nut screwed on the other, retains this wire in its place, where it is allowed to remain until the track heals perfectly, and then the cicatrix is divided down to the wire, which is removed; extension is then adopted, and the results are said to be most favorable.

Daily, at 11 A.M., quantities of operations and treatments for various affections of the eye are to be seen at the Royal Ophthalmic Hospital, probably the largest institution of this kind in London. Here I saw some *navi* treated by electrolysis, and an effort made to extirpate some eyelashes by the same means, which remind me of some improvements—as I consider them—that I adopted some years ago. In using electrolysis, I substitute a wire of suitable metal for the needle. This wire is insulated except near the point. To introduce the wire, first thrust in a fine trocar with its canula, then withdraw the trocar, leaving the canula; next push the insulated wire through the canula, and finally remove the canula while keeping the wire “in situ.” By this simple expedient the skin is entirely relieved from electrolytic action. I have tried an insulated canula, but the wire seems to me preferable, but by either method the sharpness of the perforating instrument can be preserved uninjured by galvanic action, while electrolysis goes on within the tissues, the skin remaining unharmed.

When destroying a hair bulb, i. e. eyelash, by galvanism, it has been my practice first to pull out the hair, then thrust in a fine needle as near the track of the hair as possible, and apply the current, the idea being to seal up the track by the inflammation set up. This plan I have frequently used successfully, and it differs from, and is, I think, better than the method I have seen adopted here, in which the hair is not removed.

The apparatus of Mr. Clover for the administration of ether appears to be in general favor here. Its peculiarities consist in the re-inhalation of the same etherized air, and the regulation of the proportion of ether and of air. Its advantages are: diminution of the amount of ether required to the extent of $\frac{2}{3}$ or even $\frac{1}{2}$, shortening the time required to produce *anæsthesia*, and diminishing the struggling and nausea to a remarkable extent.

Dr. B. W. Richardson has just terminated the course of “Cantor Lectures” for this season. The subject chosen was the “putrefaction of meat,” and the object appeared to be the discovery of some means by which meat could

be preserved fresh. The whole matter was handled with that clearness and originality for which the lecturer is remarkable; and he illustrated the lecture with a hundred or more experiments. The novel theory was here advanced that the putrefaction of meat depends on the decomposition of the water it contains; and hence, in seeking for some preventive the necessary qualities it should possess are, that it should not change the appearance of the flesh, that it should fix the water in the flesh, that it should not change the flavor of the meat, and that it should be decomposed by the heat used in cooking the meat, while it should be unaffected by the heat of the atmosphere. Among the many substances experimented on, "Formate of Soda" was found to approach most nearly to the required qualities. About one or two per cent. was found to be sufficient to keep meat perfectly sweet for nearly two months, and the flesh when cooked was found to possess its original flavor; but this salt, although not affecting the color, did not preserve it, and so the vessel containing the meat was filled with washed coke smoke, (carbonic oxide) which perfectly preserves the red color of the flesh.

The lecturer tried the effect of forming salts in the substances of the flesh by passing different gases successively into the vessel containing the meat, with satisfactory results, and he suggests this as being a most promising field of enquiry.

R. J. NUNN.

EDITORIAL CORRESPONDENCE.

BOLINGBROKE, MONROE Co., GA., April 30, 1878.

J. G. WESTMORELAND, M.D.:

Dear Sir—I desire to present the case of a lady, described in her own words below, to you for advice. To me it is a novel case. I will close this paper with a short history of her case of deafness.

"It is now over five weeks since my affliction came. I was out in my flower garden having some flowers removed from my pit to the yard. The weather was pleasant. When I came into the house in the afternoon it appeared

like every word any one spoke to me was a long way off, or down in a well. ♣ Soon after that a song started up in my ear or head, as if some one was playing and singing on some instrument of music. It played several days. Dr. S. proposed a change of tune, and told me to sing some other tune and see the result. I sang "Hail Columbia." It commenced playing "Hail Columbia," and played it perfectly—beautifully. Since that time it plays a variety of tunes, like I had a music-box in my head—plays the tunes I used to sing long ago. It plays sacred music also. I can stand the music, but sometimes it goes like a river in high water pouring over a dam or precipice. Occasionally it blows like the whistle on a steam engine. This noise upsets me all over. I have had no pain, no fever, and but slight disturbance of my digestion, and am up about my business most of the time. When I awake from sleep it seems to arouse it up rapidly. The roaring seems to cover the sound of the music, but does not obliterate it. I would remark that the tunes change, frequently without my will, though I can change them by singing or playing on the piano."

The lady is a subject of hereditary deafness. Commenced getting deaf about her thirtieth year; she is now 62. She has not heard out of her right ear for 20 years, and this ringing, singing, tuneful noise seems to be in the deaf ear. I have been practicing medicine 48 years, and have not met with a similar case. It works like a phonogram, reviving impressions long since made on the brain.

Please give me your opinion of the case.

Yours truly,

D. B. SEARCY, M.D.

MONROE COUNTY, May 6, 1878.

DR. J. G. WESTMORELAND:

My Dear Sir—Yours of 2d inst., in answer to mine of the 30th April, was received Saturday, and I thank you for the reply, and shall anxiously await the result of the decision of your society.

In answer to your inquiries: To the first, the subject hears some out of the deaf ear; to the second, there is no uneasiness or pain in either ear but the musical sounds

and variations mentioned; to the third question, there is no bubbling—in fact, no air enters the eustachian tube by closing the mouth and nostrils and blowing; to the fourth question I answer, there has been no headache or other unpleasant sensation in the head.

On saturday at dinner she ate a few beans (snaps); at night they soured and passed off by the bowels before morning, leaving some nausea occasionally through the day. During the disturbance of her digestion the noise in the ears and head was worse—more harsh, obliterating for the time, the musical sounds. All mental excitement increases this disturbance, but exercise in walking has a calming effect.

After a tolerably comfortable night's rest she has, this morning, a return of the instrumental music—a waltz, with all the variations, in place of songs. I am confident that this is no illusion. The patient has never had hysterics, never had any earache, no abscess in the internal ear; the drums of each ear perfect; has had occasionally small abscesses form in the external meatus, which discharged spontaneously.

Yours truly,

D. B. SEARCY.

The novelty of the above case is found in the peculiar musical sounds in the deaf ear. This the author seems to recognize, and desires thought and discussion on the subject. Unnatural roaring, buzzing and screaming sounds are very common in even slight disease of almost any portion of the auditory apparatus, and of course need not be referred to by our venerable and intelligent correspondent. Why it is, however, that memory should transfer the imprint of life's experience in the arrangement of musical sounds to this pathological state, is a matter of deep interest to the neuro-pathologist. The connection with and influence upon the mind had, by physical disease, afford subjects of the highest importance in the study of mental as well as physical disorders. In the above case the mind, without any mental aberration, revives impressions of sounds made upon the auditory apparatus many years ago, and that without any repetition of them by the voice or instrument.

The case is probably one of paralysis of the auditory nerve for the time deafness has existed. If so, may not these musical sounds be the result of partial restoration of this nerve to activity?

The case was reported to the Academy of Medicine, and the opinion of members requested.

Dr Calhoun thought the case one of chronic inflammation of the middle and internal ear, such as is constantly met with, and in which various unnatural sounds prove annoying, and that the mind is in some way connected with the difficulty. He alluded to the treatment of such cases by medicated vapor, liquids, etc.

Dr. Baird thought there existed some mental connection with the diseased ear, by which the seeming sound is perceived by the patient.

JUSTICE RENDERED.—In our April number of the *JOURNAL*, in the first article under the head of "Selections," injustice has been done the author and journal from which the article was copied, through oversight.

The article, "The Pathology of Seborrhœa," was written by Arthur VanHarlingen, M.D., chief of the skin clinic, Hospital of the University of Pennsylvania, and published in the "Archives of Dermatology," April, 1878.

Through what would appear a very careless oversight, the article was credited to the *Canada Medical and Surgical Journal*, and without giving the author's name.

MEDICAL ASSOCIATION OF GEORGIA.—The transactions of the twenty-ninth annual session, held in Atlanta last April, has just been received. We regret the want of time and space to make such notice of the volume as its get-up demands at our hands. While the volume is larger than usual, we are sorry to see that several valuable verbal reports made before the Association have not been prepared and published in the transactions.

EXCERPTA.

CARBOLIC ACID SPRAY IN COUGHS.—A correspondent, who is a druggist in this city, sends us the following communication on this subject:

More than a year ago I read in the *Journal of Chemistry* a statement that carbolic acid in the form of spray benefitted a cough. Having a severe cough at that time, I used the acid as directed, of a strength of about two per cent., with an atomizer, but finally tried five per cent., or the saturated solution. I took no medicine, and the cough went away in a few days. Now, from my first recollection I have had severe coughs, and have always had bronchitis, for which I have taken much medicine; but since using the carbolic spray I have had no cough for a year. If I feel any of the symptoms which precede a cough or a cold, a few inhalations remove all the disagreeable feelings, and prevent a cough. Inhalation through the nostrils stops sneezing and the flow of mucus. I have recommended it to many others, all of whom were benefitted, and cured if they continued to inhale the spray.

I have called the attention of many physicians to the value of carbolic acid in coughs, asthma, and chronic catarrh, and to the fact that the saturated solution (five per cent.) could be used with safety, and would in most cases be more beneficial than a weaker solution. They have answered that they would not give the acid of that strength under any consideration. But I have often used it of that strength, and many other people have tried it, with no other effect than soothing the irritation of the membrane to which the spray was applied. The tickling sensation soon ceases, and the mucus is raised with but little effort. In fact, it relieves all the unpleasant symptoms and stops the progress of the catarrh. I believe that it is an absolute cure for all inflammations of the mucus membranes of the nose, throat and lungs, and that it produces the desired effect immediately by contact with the affected part.—*Boston Journal of Medicine.*

CAN SYPHILIS BE TRANSMITTED BY MEANS OF THE SPERMATIC FLUID.—A contribution to this much debated topic is to be found in the *Annales de Dermatologie et de Syphiligraphie*, tome 8, No. 6. It is in the form of an original article by Dr. H. Mireur, known as the author of an admirable thesis entitled "*Essai sur l'Heredité de la Syphilis*." In this article Mireur, after showing the inadequacy of the several observations which have been brought forward to prove the inoculability of the spermatic fluid of a syphilitic person, adduces several cases coming under his own notice, in which inoculation was attempted without success. A patient in full evolution of secondary syphilis, having roseola papulosa, mucus patches, etc., provided fresh spermatic fluid, which was immediately inoculated upon four persons absolutely free from syphilitic antecedents. Upon two the spermatic was introduced into the arm by charged needles. Upon a third a blister was produced upon the leg the size of a ten-cent piece, and a charpie soaked with the spermatic fluid placed on the raw surface. On the arm of the fourth person an abrasion was made over the insertion of the deltoid, and several transverse incisions were made at this spot. The matter to be inoculated was placed upon this abraded surface as in the previous cases. With the exception of a slight local inflammation, no result whatever ensued; no symptoms of syphilis of any kind were noticed. Mireur points out the frequency of the contagion by the blood and the secretion of mucus patches, comparing the statistics of this variety of infection with those adduced in that under consideration, and analyzes the assertions of the writers who maintain the infectiousness of the spermatic fluid. These will not bear close examination at all, and we are inclined to think that Dr. Mireur has so far decidedly the advantage in the strength of the proofs he brings forward. *Philadelphia Medical Times*.

MEDICAL USES OF THE TELEPHONE.—We have already recorded various experiments and suggestions with reference to the medical uses of the telephone. It has been in the house of a medical man during the last few weeks,

to enable a member of the family suffering from an infectious exanthem, to communicate with her family and friends, and this application we would recommend as very practical to the managers of fever-hospitals and asylums. In the *Boston Medical and Surgical Journal* we read that its utility in the class demonstration of auscultative signs of disorder of the chest, is being studied, with good promise of success. Prof. DaCosta made a preliminary trial in March last, at the Pennsylvania Hospital, of a Bell's telephone, constructed by Dr. W. B. Hopkins, a former resident. It was tested by cases of cardiac murmurs and different varieties of respiration, and, while the results obtained were not fully satisfactory, it was believed to be demonstrated that a slight modification in the construction of the instrument, enabling it to respond to more delicate impulses, would fit it for the purpose, and make it an almost indispensable adjunct to the clinical amphitheatre.—*Hospital Gazette*.

DR. S. S. SMITH, of Driftwood, Pa., writes to the *Medical and Surgical Reporter* that he recently delivered a woman of a child weighing twenty-two pounds. He states that it was necessary to first perform craniotomy, which statement will perhaps enable the more credulous of our readers to swallow the story.—*Michigan Medical News*.

MEMBRANOUS DYSMENORRHEA.—Dr. Ranking reports a case of membranous dysmenorrhœa that was much benefited by the application of Chapman's spinal hot-bag to the lumbar region for two hours three times a day, and ten drops of Donovan's solution taken internally three times daily for three months. The general effects produced were diminished formation and thickening of the membrane, it becoming less leathery and more distinctly cellular; increased facility of separation of the membrane, and more rapid and complete expulsion; shortening of the menstrual period from ten to four days; more rapid recovery, in consequence of the diminution of pain and uterine action; benefit indirectly accruing from diminished bruising of the cervical canal; smaller quantity of morphia required; no iodism or mercurialism.—*British Medical Journal*.

ATLANTA Medical and Surgical Journal.

VOL. XVI.]

AUGUST—1878.

[No. 5

Original Communications.

STRICTURES OF THE CERVICAL CANAL AND OF THE INTERNAL AND EXTERNAL OS.

By FREDRIK EKLUND, M.D., STOCKHOLM, SWEDEN,

Member of the Swedish Society of Physicians; Physician of the First Class in the
Swedish Royal Navy; Foreign Honorary Graduate of the Medical
Department of the University of Georgia, etc., etc.

TRANSLATED FROM THE SWEDISH,

As Originally Published in the "Nordiskt Medicinskt Arkiv," Band. VIII., Heft 3.,

BY

A. SIBLEY CAMPBELL, A.B., M.D., AUGUSTA, GA.

TRANSLATOR'S PREFACE.

In presenting a translation in full of Dr. Eklund's admirable monograph, I would invite especial attention to his views as to the etiological bearings of the question, and to his excellent classification—more complete, I believe, than is to be found in any other treatise on the subject.

Growing out of his views as to etiology, the indications as to prophylaxis assume a position of prime importance, challenging our earnest study and attention. The divisions of the question which relate to pathological anatomy, diagnosis, prognosis and treatment, are also carefully considered;—the whole being well illustrated by a sufficient number of selected cases, accurately reported and arranged under the different classes to which they belong.

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Without anticipating further by any prefatory statement in regard to the author's deductions and the arguments upon which they are founded, I will only express the hope that justice has been done the original in the attempt thus to render it in its present form.

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ETIOLOGY.

During the continuous progressive development of science, it is inevitable that conflicts of opinion will arise in regard to a multitude of different questions. If now these antagonistic views relate only to subjects of trivial weight, it is of little importance if we pass them over without notice. Should, on the contrary, an opposite condition exist, and in questions which are of the greatest moment, men of great distinction in the profession express opinions which, notwithstanding repeated protests, they persistently maintain, every one must feel himself called upon to record his experience; so that, through the many-sided lighting of the question, he may contribute to the advancement of the truth. Among such questions of the greatest weight and interest should be reckoned the present teachings in regard to strictures of the cervical canal and of the orifices of the uterus.

Without the fear of being contradicted, I venture to maintain that the disorders under consideration, taken in the proper sense, by analogy with strictures of the urinary canal in the male (excluding here any question as to such strictures), were in this country until a short time ago exceedingly rare or at least little noticed. In the circular of the Royal Sanitary College, issued to all physicians in the kingdom, with a revised formula for the sick-estimates and reports, and with also a reformed nomenclature for the purpose of recording the various diseases—published in Stockholm on the 31st of August, 1874—in which strictures of the small intestine, of the rectum, of the œsophagus, and of the urethra are found recorded, we fail to find strictures of the cervical canal and of the orifices of the ute-

rus. So far, I have not known even a single case of the disease last named to have been announced in the public hospital reports, and from private practice only two¹. The same condition of things existed until a short time ago in Great Britain, where according to W. CUMMING² real strictures of the cervix uteri were extremely rare (although indeed not so rare as strictures of the male urethra in subjects who had not been affected with gonorrhœa); whereas, incision of the cervix or hysterotomy for the cure of strictures, was not at all a rare operation in the last named country. M. DUNCAN³ also expresses himself to the same effect, having never seen or heard of strictures, in the ordinary surgical sense, in the cervical canal or the orifices of the uterus.

But besides the fact that my comparatively limited experience gives support to the supposition that with us the frequency of these disorders is involved in doubt, information derived from other sources comes to confirm the opinion that the condition of things is one and the same in other countries. Surprising indeed is the report of Ed. MARTIN⁴, according to whom three hundred and eighty-six operations for stenosis of the external os and cervical canal were performed by himself since 1850. Likewise HEGAR and KALTENBACH⁵ seem to have an extensive experience in regard to the troubles in question, as they state that out of more than one hundred and fifty dissections they have only two deaths to lament⁶.

1 Sven Skoeldberg: Nordiskt Medicinskt Arkiv. Band. I., N:r. 9., 1869, p. 6.

2 The Retrospect of Medicine. Edited by W. and J. Braithwaite: July-Dec. 1873, pp. 305-6.

3 Ibid., Vol. LXVII., Jan.-July 1873, p. 301.

4 Zeitschrift für Geburtskunde und Frauenkrankheiten. Band I., Heft 1., 1875, p. 115.

5 Die Operative Gynäkologie: Von Dr. A. Hegar und Dr. R. Kaltenbach. Erlangen; 1874, p. 292.

6 [In regard to the operation of incision and division of the cervix, Dr. Sims says: "Since 1856 I have operated many hundred times, nearly a thousand, not always for dysmenorrhœa, and I have lost two patients by it—one in 1869, the other in 1873." Dr. Pallen states that he has operated for stenosis of the cervical canal 337 times since Nov. 1865, with two deaths. Pallen: Incision and Division of the Cervix Uteri for Dysmenorrhœa and Sterility. American Journal of Obstetrics, Vol. X., No. 3. pp. 375 and 386.]—TRANSLATOR.

More than a decade past, OPPOLZER urged that medicine must pass over from the pathologico-anatomical standpoint, and take her stand upon the etiological. More than once he expressed his fully confident hopes that, with a reformation in the direction just mentioned, health bringing fruit would ripen to harvest for suffering humanity. OPPOLZER's eloquent voice is hushed, but the truths which he proclaimed outlive him, and are now unfolded in their excellence by his heedful and faithful disciples.

And so in regard to stenosis of the cervical canal and of the orifices of the uterus, shall a clearer insight into the causes of these disorders bring it to pass that, even if they are not entirely eradicated, their number shall yet be reduced to a minimum. But before I state my observations and enter into an analysis of them, permit me to enter upon a few general considerations.

A priori, it must be admitted, that by analogy with the processes which take place in regard to other canals in the organism, after all diseased conditions which are attended with neoplasms of the connective tissue, or after solutions of continuity, which are healed with a gradually contracting cicatrix, a stricture at some point must generally result. SCHROEDER¹ also regards the causes which produce stenosis of the cervix uteri to be of the most varied nature: "they may thus arise when the calibre of the canal becomes closed up through inflammation and engorgement, and further from inflammation of the mucous membrane when at the same time the engorged cervical follicles (ovula Nabothi) are ruptured, and their granulating walls become adherent to each other; and besides these causes, from cicatricial formations of all kinds:" of these he makes special mention only of those which are produced by cauterization; but foremost among all the causes he regards injuries during parturition and the puerperal inflammatory processes. In particular is this opinion of SCHROEDER's shared by E. MARTIN² who re-

¹ Handbuch der Speciellen Pathologie und Therapie. Herausgegeben von Dr. H. von Ziemssen. Band X. Krankheiten der Weiblichen Geschlechtsorgane, von Prof. Carl Schröder, in Erlangen. Leipzig 1874, p. 61.

[See, also, American Edition, p. 66.]—TRANS.

² E. Martin, op. cit., pp. 108-9 et seq.

gards these strictures in the great majority of cases to be "acquired, and to depend upon deep spontaneous ulcerative lesions during pregnancy;" but he believes they chiefly originate in puerperæ, for instance from diphtheritic formations, or in consequence of vaginal injections with caustic liquids, e. g. sulphuric acid; and in the non-gravid from contracting exudations after inflammations of the inner margin of the lips of the uterus with or without ulceration, to which he believes repeated cauterizations with nitrate of silver in substance contributes; whereas, he scarcely in a single instance observed this result after numerous cauterizations with liquor nitratis hydrargyri. As these authors hold, it is consequently a variety of different causes which may produce the same result, namely stenosis; but it is plain, that in a purely practical respect the essential weight rests upon the correct answer to the question: What are the most commonly observed causes, or at least those which in the majority of cases, or with great certainty, produce the strictures in question, and what are the causes which only very rarely make their influence felt? As the future weal or woe of many depends upon a true answer to this question, perhaps every contribution to its solution, even though insignificant, will be welcome; and to afford it such assistance, is the chief aim of this paper.

MARTIN¹ answers the question in the following manner: "In the majority of cases stenosis arises in sterile young wives from gonorrhœa in the husbands, although I do not deny the possibility that scrofula, or that various kinds of mechanical irritation, such as intra-vaginal self-abuse, may under certain conditions produce an inflammation which gives origin to stricture. Comparatively more rarely does MARTIN consider that the diseased conditions above mentioned, (p. 4) are observed as the causes of stenosis.

Touching the great weight which MARTIN places upon gonorrhœa in the male as the cause of stricture of the cervical canal in sterile young wives, the same views have

1 E. Martin, op. cit., p. 110.

been expressed by the same writer¹ now for more than eleven years past. But MARTIN at once encountered strong opposition. Besides, G. BRAUN² next declared that he could allow Martin's proposition to have current force in only a few cases. It deserves to be remarked further, on the question as to blennorrhœa as the cause of strictures of the cervical canal, that BERNUTZ and GOUPIL³ long ago considered themselves authorized—on the ground of a sufficiently large number of cases—to deliver the opinion that none of the women affected with blennorrhœa, whom they saw, had exhibited adhesions, or cicatrices of the vagina, nor any constriction of the cervical canal; a few, however, as the result of blennorrhœa, had been the prey to dysmenorrhœal sufferings, which they formerly did not at all experience; but in these cases the blennorrhœa had produced a pelvi-peritonitis and consecutive uterine deviation (?) or it had left behind as a sequel, a uterine catarrh, to which they believed they could attribute the disorder in the excretion. The prime resultant of their opinions is, that strictures as sequelæ of venereal affections—be it gonorrhœa or syphilis—are entirely excluded; at least, when in conformity with the authors mentioned, we abstain from cauterization.

The standpoint, on which F. A. SIMON⁴ placed himself, when he expressed the opinion, that with gonorrhœa the mucous membrane of the cervical canal and of the uterus itself is very seldom concerned, must now be regarded as altogether overthrown. Without doubt BARNES⁵ has already come much nearer the truth, when he maintains that blennorrhœa has a great tendency to invade the cervical canal and afterwards to become chronic; and accord-

1 Monatschrift für Geburtskunde und Frauenkrankheiten. Band XXV., p. 107.

2 Medizinische Jahrbücher. Redigirt von C. Braun, A. Duchek und L. Schlager. Band XI., p. 98.

3 Clinique Médicale sur les Maladies des Femmes. Par G. Bernutz et E. Goupil. Paris, 1860. Tome I., p. 87.

4 Handbuch der Speciellen Pathologie und Therapie. Band II., Abtheilung I: Syphilis; von F. A. Simon, p. 501.

5 R. Barnes: Clinical History of the Diseases of Women. London, 1873, p. 856.

ing to my opinion BAUMES¹ is perfectly correct in this, that with blennorrhœa the uterus and tubes are invaded by degrees, and also that the disease there becomes latent² or extends thence to the ovaries. It is generally known that most cases of gonorrhœa in men return to health without being followed by strictures, and especially if we refrain from employing the so-called abortive agents (nitrate of silver and other caustics in concentrated form) for destroying the contagion. Cases get well in which, through these agents, a rapid cure is accomplished; but on the other hand we have also very often observed strictures after the employment of concentrated caustics.³

Strictures occurring in men as a consequence of gonorrhœa, have their seat principally in the membranous portion, it being the narrowest part of the urethra.⁴ In agreement therewith they occur in women, who are nulliparæ, most often in the lower portion of the cervical canal, which in these has a spindle shape; and in women who have borne children, in the upper portion of the canal, which as the result of puerperal involution, is generally narrowest at this point. Yet it is entirely undemonstrated, that blennorrhœa itself is the essentially originating cause, so long as strictures of the cervical canal and the orifices of the uterus constitute in prostitutes—the majority of whom are the most affected with blennorrhœa—a very rare or at least little noticed disease. And if now in those women who are pre-eminently the subjects of blennorrhœa, and very often to a particularly intense degree, so extremely seldom strictures are observed, how

1 Handbuch der Speciellen Pathologie und Therapie, op. cit., loc. cit.

2 Næggerath. [Emil Næggerath: Die Latente Gonorrhœ im Weiblichen Geschlecht; Bonn, 1872. Also, "Latent Gonorrhœa especially with regard to its influence on Fertility in Women." Transactions American Gynecological Society. Vol. I., 1876, p. 268.]—TRANS.

3 Compendium der Chirurgischen Pathologie und Therapie. Von Dr. C. Heitzmann. Wien, 1869, p. 128.

4 Grævell's Notizen für Praktische Ärzte. Berlin, 1873, p. 596, (Rabisch's review). Of 378 cases, (of which 204 were produced by blennorrhœa), which during the years 1862–1872 were observed at the public hospital in Vienna, 118 had their seat in the pars membranacea, 15 in the pars spongiosa, 3 in the pars prostatica, 10 in the pars membranacea and pars spongiosa, and 29 in the bulb.

much less then should we ascribe to gonorrhœa in the male the power to produce these unfortunate results, even admitting—though still far from being according to the rule, but only exceptionally—that from a gonorrhœa in the husband originates an acute blennorrhœa in the wife. Every physician of any experience on this subject quite certainly knows various patients, married as well as single, who for ten, twenty or thirty years past, evidently had blennorrhœa without stricture occurring in the cervical canal.

If, consequently, we cannot adjudicate to gonorrhœa in the male, as a cause of stricture of the cervical canal, any specially great significance, there still remains the fact that constrictions in the canal of the neck of the uterus are each year more and more frequently coming under treatment. In order to be able in a satisfactory manner to solve our problem, we must now turn our attention in another direction; and nothing then suits our purpose better than a consideration of the diseases which most commonly occur in the cervix uteri, and the methods which are principally and most frequently employed for their relief.

Of these diseased conditions, catarrh—the usually faithful attendant of derangement—occupies, in regard to its frequency, the most prominent position, and exhibits different intensities, from simple catarrh, through the intermediate erosive and ulcerative catarrhs, up to those severer forms, granular (vegetating and fungous) catarrhs, which are characterized by hypertrophy of the papillæ observed below, and neoplasms of the like higher up in the cervical canal. LINDGREN¹ has found that in children a few months old no papillæ appear in the mucous membrane of the cervical canal. In the adult, according to the same author, it is far from being the case that papillæ constantly appear in the mucous membrane of the cervical canal; that they are usually not observed in the perfectly healthy virgin uterus; and that they appear developed and numerous in proportion as the uterus becomes

1. Nordiskt Medicinskt Arkiv. Band III., N:r. 13. Hj. Lindgren: Om Lifmoderns Byggnad, pp. 28-9.

exposed to irritation of any kind; consequently, especially in older women, in whom he not rarely met with free papillæ. According to HENLE¹ papillæ are found only in the lower portion, with a thicker layer of pavement epithelium covering that portion of the cervical canal. No one denies that the milder forms of uterine catarrh, even in conjunction with erosions, may recover under a proper course of treatment directed merely against the general derangement; likewise, that the ulcerations so often observed are usually so superficial and insignificant that they are healed without cicatricial contraction, if we only refrain from powerful caustics; whereas, the more extensive ulcerations and granulations demand local treatment, in which we must determine to employ such agents as shall counteract if possible the tendency to cicatricial contractions, which at least the severest forms of the pathological condition last mentioned necessarily occasion. For effecting a cure of these, the most varied caustic and astringent agents have been employed, from the ferrum candens, advised by JOBERT,² down to tannin, which is recommended and employed with success in crayons, for uterine catarrh, by Prof. A. ANDERSON.³

As to the former of these measures, its employment can probably only be taken into consideration in the very severest cases; with regard to the tannin treatment, the name of the distinguished teacher constitutes a certain safeguard as to the reliability of the agent. The following agents have been separately proposed as efficacious in the diseases under consideration: namely, the crayons of sulphate of zinc by BRAXTON HICKS, zinc-alum crayons by SVEN SKÖLDBERG, nitrate of silver by BARNES and others, solid Vienna paste by FILHOS, liquor nitratis hydrargyri, employed for the first time in the latter part of May 1818 by RECAMIER,⁴ and since recommended by JOBERT, LIS-

1 Henle: Anatomie des Menschen. Band II., p. 482.

2 J. V. Gairal: Des Descentes de Matrice; Traitment des Maladies du Col par les Liquides. Paris, 1872, p. 107.

3 Hygiea: Svenska Läkaresällskapets Förhandlingar. 1875, p. 157.

4 J. V. Gairal, op. cit., loc. cit.

FRANC, VELPEAU,¹ E. MARTIN² and others. As sufficient experience is already collected for us to be able to form for ourselves a reliable opinion as to the different values of these caustics, it is not devoid of interest to hear the different opinions which writers have expressed concerning these agents; and on this point I will premise in brief, that all who in daily practice make use of caustics, have become chargeable with producing stenosis of the cervix.

In regard to sulphate of zinc, SKOELDBERG³ says: "I found that the effect of the sulphate of zinc (in crayons, according to BRAXTON HICKS' method) was very powerful, and I also saw two cases in which a cicatricial adhesion of the os externum had taken place after its employment; I therefore determined to find some means for mitigating this too powerfully caustic influence." On this application (zinc-alum crayons) FRANKLIN NYROP⁴ makes, among others, the following remark: "Sometimes also very considerable contractions of the cervical canal may arise therefrom. . . . With Prof. HOWITZ I have seen in a patient, who was treated by himself, so considerable a stricture, that only a fine sound could pass the canal, for which it was necessary to perform bilateral dilatation." On the nitrate of silver pencil, E. MARTIN expresses the following opinion: "Contracting exudations after inflammations of the inner margin of the lips of the uterus, with or without ulceration, under certain circumstances, undoubtedly produce strictures of the internal or external os uteri and cervical canal, particularly if the inflammation has attacked the entire circumference of the mouth of the womb. A similar contraction of the os uteri is induced, as my own experience and the practice of others have taught me, by repeated cauterizations with nitrate of silver in substance: while scarcely in a single

¹ Henri Despeyroux: *Etude sur les Ulcerations du Col de la Matrice*. Paris, 1872, p. 112.

² E. Martin, *op. cit.*, *loc. cit.*

³ Nordiskt Medicinskt Arkiv. Band I., Nr 9, 1869, p. 6.

⁴ Bibliothek for Læger. Band IV, Heft 2, 1874: *Den Intrauterine Behandling*, p. 300.

instance have I observed this result after numerous cauterizations with acid solution of nitrate of mercury."

Let us now hear the experience of BERNUTZ and GOUPIL¹ in regard to the agent last mentioned. These very eminent authors express themselves on this point in the following manner: "A case of 'cicatrisation laterale-gauche du col,' which we observed in 1848 jointly with PIEDAGNEL, had been produced by cauterizations with liquor nitratis hydrargyri, and gave rise to very severe dysmenorrhœa, but did not prevent a complete discharge of the menstrual blood." Another case was that of "a young lady, who was the subject of metritis with granular ulcerations of the neck, extending as far as the interior of the canal. The ulcerations were cauterized with liquor nitratis hydrargyri and Filhos' caustic (solid Vienna paste). The result of treatment was occlusion of the external os, which was relieved by vaginal hysterotomy." Not without reason, therefore, BERNUTZ and GOUPIL warn against the employment, without sufficient caution, of a therapeutic agent, of which so deplorable an abuse is made.

I have mentioned above what an excellent application tannin crayons are in the lighter forms of uterine catarrh. But in the severer cases, where the ulcerations are more extensive, the papillæ having become hypertrophied or neoplasms of the same structures having taken place, a more powerful agent undoubtedly becomes necessary, and this is the sulphate of copper, which for a century past has been extensively employed without meeting with discredit. On this STELLWAG VON CARION² expresses the following favorable opinion: "When the mucous membrane is very greatly swollen and relaxed, the catarrhal secretion being quite abundant—and it is, consequently, more a question of a strongly astringent influence than of a powerfully caustic effect—sulphate of copper in crystals is unconditionally the best agent." I have had no little experience with this remedy in dilute form (1:5), which I

¹ Clinique Medicale sur les Maladies des Femmes. Par G. Bernutz et E. Goupil. Tome I; Paris, 1860.

² Dr. Karl Stellwag von Carion: Lehrbuch der Praktischen Augenheilkunde. Wien, 1864, p. 402.

daily employ in the severer cases of uterine catarrh for painting with PLAYFAIR'S sound¹ over the entire interior of the uterus, and can testify that it is especially efficacious without being the cause of any inconvenience. It does not erode the mucous membrane of the cervical canal like crayons of nitrate of silver, sulphate of zinc, or the zinc-alum crayons; but I have applied it without producing this injurious effect upon the follicular structures, in which catarrh has its principal seat:

I have remarked above, that we must make an accurate distinction between those causes which are the most commonly occurring, or at least those which in the majority of cases or with great certainty produce the strictures in question, and those which only very rarely make their influence felt. Now, belonging to the former class and standing in the foremost rank, according to my opinion, is the abuse of solid caustics, producing deep solutions of continuity when employed in the treatment of diseased conditions within the cervical canal; to the latter, on the other hand, belong certain pathological conditions which arise independently of treatment. That is to say, it is altogether impossible for us to agree with SCHRÖDER'S above-mentioned theory, that traumatism resulting from parturition, and the puerperal inflammations, are the foremost among the producing causes. In opposition to the former of these is the consideration, that notwithstanding the fact that the lacerations ordinarily occurring in the cervix are all healed with a cicatrix, yet the calibre of the cervical canal—thanks to the enormous dilatation of the cervix during parturition—I may say, without exception after child-birth, shows a dilatation which is most considerable at the external os, or just at the point where the lacerations have been deepest and most numerous. And, that we should as little adjudge to puerperal inflammations any prominent influence in the production of stenosis, is indicated by the fact, that as often as we meet with these inflammations in the uterus and its annexa, so seldom can we regard stenosis of the cervical canal as the

1 [See Ziemssen's *Cyclopædia* (Am. Ed.) Vol. X., p. 136—also *Brit. Med. Jour.*, Dec. 11, 1869, and *Lancet*, 1870, II., July 1.]—TRANSLATOR.

sequelæ of these. The same is true with regard to blennorrhœa of the cervix as a cause of strictures. Blennorrhœa occurs very commonly in prostitutes, but stenosis of the cervix in this class of women is, as above stated, extremely rare or else little noticed. SCHRÖDER's supposition that strictures are produced in consequence of rupture of the ovula Nabothi, the granulating walls becoming adherent to each other—it is quite certain we very rarely indeed have the opportunity of observing, if ever at all.

Among such causes as very rarely exert their influence, those perhaps should be reckoned which are mentioned by Martin, viz: deep spontaneous ulcerative lesions occurring during pregnancy; likewise diphtheritic formations, and vaginal injections with caustic liquids; besides, in the non-gravid, contracting exudations after inflammations of the inner margin of the lips of the uterus, with or without ulceration.

CLASSIFICATION.—On the ground of the experience acquired, during the observations which I have had the opportunity of making, in regard to strictures, of the cervical canal, in the proper sense of the term, these perhaps may be divided into *obliterating*, *cicatricial* and *callous*. The obliterating may, in harmony with the commonly received method of speaking, be subdivided into *totally obliterating* or *adhesive in the proper signification*, and *impermeable in the surgical sense*, which latter are either *adhesive* or *ethmoid*. Of the callous I have observed three different kinds, viz: *circular*, *semi-circular* and *diffused callous*.

I.—OBLITERATING.

A. *Totally Obliterating or Adhesive in the Proper Sense*.—These are recognized when the walls of either one or both of the orifices of the cervical canal, or the walls of the canal itself in its entire extent, or in any portion of it, are completely adherent to each other. The totally obliterating strictures are well known to the pathological anatomists. Thus FÆRSTER,¹ for instance, remarks: "From adhesions after inflammation, atresia may occur in partic-

¹ Lehrbuch der Pathologischen Anatomie. Von Dr. August Færster: Sechste Auflage. Jena, 1862, p. 481.

ular portions, or obliteration of the entire cervix." ROKITANSKY¹ has observed, that "obliteration of the os externum alone is rarely the case, when cicatricial formations occur after ulcerative loss of substance." KLOB² says: ". . . obliterations of the cervix uteri occur especially in the ostia," and "the granulations" which are developed from the ulcerated surfaces likewise often lead to atresia;" also further on: "incontestably it comes in many cases from adhesion through the epithelial structures, succeeded by a firmer closing up of the adherent tissues, but which often, too, limits itself to merely the external extremity of the canal."

In consequence of the fusiform cervix in virgin uteri ("virgines quoad uterum") they occur principally in the ostia—according to KLOB,³ oftener in the internal than in the external; according to COURTY,⁴ on the contrary, they generally affect the lower portion of the canal. My own experience is too limited to decide this disputed question. As an example of such strictures and their origin, I present the following case:

Case I.—K. J.—n, a seamstress, 30 years old, from Stockholm.

As a child she was always very delicate, was very frequently sick and kept her bed. The menses appeared for the first time when she was sixteen years old, without pain, and continued for three or four days. Afterwards they were absent for nearly a whole year, when she was very weak and delicate. When they subsequently returned they continued each time from three to four days, but were always preceded by and accompanied with severe sufferings, and were also followed by leucorrhœa. The intervals between the periods comprised usually eight, nine or ten weeks. In the year 1872 they were again absent

¹ Lehrbuch der Pathologischen Anatomie. Von Carl Rokitansky, Band III., Wien, 1861, p. 466.

² Pathologische Anatomie der Weiblichen Sexualorgane. Von Prof. Dr. Jul. M. Klob. Wien, 1864, p. 109.

³ Klob, op. cit., p. 111.

⁴ Klob, op. cit., p. 113.

⁵ Klob, op. cit., p. 109.

⁶ Traite Pratique des Maladies de l'Uterus, des Ovaires et des Trompes. Par A. Courty: Deuxieme Edition. Paris, 1872, p. 398.

three or four months, and she therefore consulted a physician, who succeeded, by the administration of iron, in restoring the menses to their proper time. At the same time, for her leucorrhœa, applications of zinc-alum crayons were employed in the cervical canal. During the progress of this treatment she had at one time a hemorrhage continuing for four weeks. She came under my care on the 27th of January 1874, for chlorosis, gastric catarrh and ulcerations of the cervix. So far as we can be considered authorized in drawing any conclusion from the patient's social condition, morals, habits, etc., we must here rely upon her statement that she has never had intercourse, and far less has she ever been affected with blennorrhœa. Under the use of Karlsbad water and iron, the gastric catarrh improved and her strength increased; but at the same time it happened that under the application of nitrate of silver a contraction of the os externum took place; and in this way, besides, the raw surfaces coming together became completely united with each other, so that total obliteration of the external os occurred. I expected now that the dysmenorrhœal pains during the next following periods would be augmented to their greatest severity, or that symptoms of retention, or of retrouterine hæmatocele, might appear; but, strangely enough, all these troublesome consequences failed to occur. She was operated on by the introduction of a trocar into the cervix and bilateral incision with Sims' knife. She afterwards had her menses regularly, the last were shortly after July 1875, but since this they have failed to appear. The external os is again nearly occluded, and I have now advised her to submit to SIMON'S conical-plastic ("kagelmantelformiga") excision of the cervix.¹

B. Impermeable Strictures, in the Surgical Sense.—These

1 [Literally, "conical-mantleform."

See Ziemssen's *Cyclopædia of the Practice of Medicine*. Vol. X. *Diseases of the Female Sexual Organs*. By Carl Schröder. (American Edition), pp. 79-80. Amputation of the infravaginal portion.

See, also, notice of Simon's "Wedge-flapped Excision of the Cervix Uteri and its Applications:"—review of Dr. M. Marckwald's paper (*Arch. für Gyn.*, Band VIII., Heft 1.)—*American Journal of Obstetrics and Diseases of Women and Children*, Vol. VIII., No. 3, pp. 564-5. Also, Ziemssen's *Cyclopædia*. (Am. Ed.) Vol. X., pp. 90-93.]—TRANSLATOR.

strictures are characterized by the fact that the walls of the cervical canal to a greater or less extent, or of one of its orifices, are incompletely united with each other, so that the menstrual blood may ooze through them very well, but it is impossible to pass even the finest sound. They are subdivided into (a) the adhesive, and (b) the ethmoid.

a. *Adhesive Impermeable Strictures.*—In these the walls of the cervical canal or those of one of its orifices are firmly united with each other, yet not so completely as to prevent the menstrual blood and uterine secretions from trickling away, through one or more capillary openings, which still do not allow the finest sound to pass. The following may be related as an example :

Case II.—A. S., a servant girl, aged 37, from Stockholm. She became regular for the first time between her eighteenth and nineteenth years. The bleeding continued only one day, and was neither preceded by nor accompanied with pains. The menses afterwards returned regularly after intervals of four weeks, yet always scantily ; at twenty years of age she became weak and easily fatigued, and experienced also other symptoms of chlorosis ; at twenty-six years of age the menses disappeared and were absent for a year and a half, but returned after the use of medicines which were administered for the chlorosis. Afterwards she had her menses regularly until three years ago, when during a journey from Hasthølm to Linköping they failed entirely to appear and did not return until the following spring, after which they returned at intervals—now of three, now of five weeks—and continued for four days. For lassitude and aching limbs, besides a thick yellowish discharge with which she has been troubled for a long time back, (there is no question that she has been affected with blennorrhœa), she consulted several physicians, with the result that her general condition was improved and the discharge diminished, and became clear and colorless. In October 1874, she began to undergo local treatment with zinc-alum crayons, from which she experienced severe pains in the loins, and the discharge now became yellowish, and purulent and “cheesy

clots" (caustic eschars) came away. With the pain in the lumbar region she had already long before been troubled, every other time and one day before the catamenia should appear, which pain ceased with the beginning of the bleeding. Concerning the abundance of the catamenia in the winter and spring of 1875, she made the observation that as long as she remained very quiet, only a little blood came away; whereas, when she exerted herself much the bleeding became very copious. In the beginning of June 1875 she was seized again with the most violent pains in the lumbar region before the period, which continued for four days, yet extremely scantily, so that only a few stains appeared upon her linen; at the same time she was troubled with a smarting in micturition.

Status præsens, July 10th, 1875.—The patient is of small stature, full habit, but lax in flesh, she looks like an extreme sufferer, anxious and melancholy. She states that during the period, which terminated two days ago, the sufferings were worse than ever.

With bimanual examination the uterus is found to have taken an ante flexed position and not to be enlarged. Neither at the sides, above nor behind the uterus, can any resistance be felt. The vaginal walls are wide and relaxed. The vaginal portion is conical, yet but slightly abnormal. Through the anterior vaginal roof the uterus may be palpated, the body of which is bent upon the cervix at nearly a right angle and deviates also to the left (antero-lateral flexion). The os uteri presents the appearance of a fine transverse cleft nearly a centimetre long, the extremities of which are formed by two small holes, the size of a pin's head, in the mucous membrane. In the attempt to introduce the uterine sound it is found that the anterior and posterior lips of the os uteri are almost completely united with each other through a strong membrane, which in appearance and consistence exhibits the same qualities as the rest of the vaginal portion. It does not yield in the least when pressed upon with the sound. The small openings just mentioned, the size of a pin's head, at the extremities of the rima, do not at all permit the finest elastic sound to pass, but it is through these that

the menstrual blood and uterine secretions ooze away, which was observed during examinations made twice a week up to the 9th of August, 1875; at which date an incision of the adherent uterine lips was made, and extended in the cleft between the pin-head openings; after which the strong, but not cartilaginously hard, connecting membrane—which united the anterior and posterior cervical walls—was divided with a fistula knife. The uterus was then sounded twice a week.

October 15th, 1875.—The woman's menstruation now takes place without any pain, but the subacute gastric catarrh, notwithstanding an exact diet, etc., manifests itself as continuing at the same point. AVELING's sound can with ease be introduced into the uterus.

b. *Ethmoid Strictures*.—In these the walls of the cervical canal, to their whole extent or only partly, are united with each other through extremely strong and hard fibres of connective tissue, which only with difficulty are cut through, whereupon they crackle under the knife and do not give rise to any bleeding worth mentioning, as they are very poor in blood vessels, and for this reason also they present a pinkish or grayish appearance. Retiform strictures are described by KLOB¹, who says: "the atresias extending over the greater spaces affect most often the cervical canal. The structure, which in such cases produces the occlusion, is a soft, sometimes vascular, connective tissue, which—under the form of filaments and lamellæ—stretches from one wall to the other; and often the valvular spaces between these lamellæ, being filled with serum, are closed up; for which reason it can only with difficulty be determined, how far they are the remains of former follicles or—which is more probable—give evidence of an incomplete obliteration of the cervical canal. In most cases, we can with a steel sound, without the employment of force, separate these bands of connective tissue from each other," etc.

Besides the above enumerated diagnostic signs and general characteristics, the ethmoid strictures of my own observation differ from those, which KLOB has described,

¹ Klob, op. cit., p. 111.

in the fact also that they do not give way even before the strongest pressure with the point of the sound.

In the five cases which I have observed, the patients had been treated beforehand for ulcerative cervical catarrh by the introduction of zinc-alum crayons into the cervical canal. The origin of these can be explained by the exfoliation of the mucous membrane of the cervical canal as caustic eschars, and the healing of the consequent solutions of continuity through the formation of granulations. These neoplastic granulations from the anterior and posterior walls of the cervical canal have directly coalesced and given rise to the filaments of connective tissue of a tendinous firmness. COURTY² also has described these strictures, but GALLARD³ denies their existence, and expresses himself as unaware that such strictures have ever been observed or described by any author. I term them ethmoid or sieve-like, because the flow of menstrual blood, and of other uterine secretions, traverses them without much interruption, as if through a sieve or filter, under the influence of the rythmical contractions of the uterus. In the five cases observed by me the patients have been sterile. Permit me to relate the following three cases.

Case III.—J. G., seamstress, aged 28, from Stockholm. After overstraining herself, she had a hemorrhage from the genitalia for the first time when sixteen years old. She became faint and terribly ill with the pain over the back and abdomen. The bleeding continued for two days. She became regular at seventeen years of age. Menstruation continued three or four days and took place entirely without pain. It since returned regularly every four weeks, has usually lasted three to four days, at a later time five to six. Before the ingress of menstruation she has not generally had any pain until latterly. She has been troubled with chlorosis for a very long time, and with a discharge ever since the establishment of the catamenia. The chlorosis has been on a steady increase, with pain in the back and abdomen, and also great weakness.

For the past six years she has suffered with sometimes

² A. Courty, *op. cit.*, p. 682.

³ T. Gallard: *Lecons Cliniques sur les Maladies des Femmes*. Paris, 1873, p. 188.

violent, sometimes less severe "grinding" pains in the lumbar spine and cramps about the stomach, which symptoms sometimes, but not always, increased shortly before the catamenia, but always became most severe during the progress of menstruation, and especially towards its close. For three years past she has been at the Seraphine Lazzaretto for gastric inflammation. She was afterwards attended by another physician for ulcer of the uterus and inflammation of the ovaria. The local treatment consisted in the introduction of zinc-alum crayons and tampons. The cramps over the lumbar spine, hips and abdomen, during the periods themselves, with which she had already suffered before, at the last time all at once became augmented and manifested themselves as "grinding pains," during which the discharge of blood was observed to be more abundant, whereupon the pains abated, again to advance by degree to the paroxysm.

In the patient's statement, that she has never had intercourse and still less been affected with blennorrhœa, I believe that I can place full confidence.

Status præsens, September 9th, 1875.—The patient is tall and thin, with a grayish-yellow dark complexion, and seems to be an extreme sufferer. She complains of weakness of the limbs, acidity of the stomach, and headache; besides which she is annoyed with an uneasy feeling in the stomach.

The examination indicates chlorosis, gastric and intestinal catarrh, and also leucorrhœa.

The uterus is not enlarged, but anteflexed. After the sound is passed halfway into the cervical canal, it is stopped by an obstacle, which—after dilatation of the lower portion of the canal and holding the lips apart—is found to depend upon an adhesion of the upper portion of the canal, through short but very firm and hard bands of connective tissue. These were completely divided by incisions with a fistula knife, after which the patient's uterus was sounded twice a week. Menstruation afterwards occurred without pain.

Case IV.—Mrs. A. M. F., aged 33, from Stockholm. Married since May 3d, 1874. Menses appeared for the first

time in her fourteenth year; but she cannot remember how many days the menstruation continued, yet she recollects that it occurred without pain. Menses since returned regularly after the expiration of four weeks, and the bleeding lasted usually eight days, which she attributes to her having been delicate and having also been obliged to work "dreadfully" hard. At twenty-one years of age, she became pregnant and had a tolerably easy labor. Her lying in seems to have occurred normally, at least she left her bed on the second day and attended to her usual duties, but she was one time troubled all along with a thick, yellow discharge of a disagreeable odor. Five years afterwards she had a miscarriage at the fourth month and then lay in bed some time with fever. Thereafter, she believes as the consequence of over-exertion, she began to be troubled with pains in the abdomen, not only before menstruation, but also after its cessation.

Her present attack she dates from July, 1872. She had then had her menses for four days, during which—in the same way as before, and afterwards, so many times—she must have over-exerted herself very considerably by carrying heavy burdens. She then had a violent pain in the left groin and abdomen directly above the vulva, but this attack was relieved after the administration of a purgative. Somewhat more than a year ago, as she was very much troubled with abdominal pain and a flux, she consulted a physician, who pronounced her disease to be "an ulcer of the uterus;" for which, during a further period, treatment with zinc-alum crayons and tampons was employed. She became free from the pain, and the whole summer of 1874 was without suffering, and comparatively free from the flux. She positively denies that she has had any discharge, that can be construed as blennorrhœa.

Status præsens, June 7th, 1875.—The patient is rather tall and thin, but has a very bright, red-cheeked appearance. The expression of her countenance, nevertheless, gives indication of a certain oppression, mingled with anxiety. She is subject to chlorosis and also gastro-enteric catarrh.

With bimanual examination the uterus is found not

to be enlarged, and occupies its normal position in the pelvis. The vaginal portion is of moderate size, perhaps somewhat flattened from before backwards, but neither doughy nor livid; on the contrary, it is felt to be firm and hard, and also has a bright, rose-red color. The os uteri forms a transverse fissure. On separating the lips of the os from each other, the walls of the cervical canal are perceived to have been united with each other through thick, hard and strong adhesive bands, which made it impossible for the point of the sound to enter even a line into the cervical canal. In cutting through the connecting fibres just mentioned with a fistula knife, so that the natural width and form of the cervical canal was restored, they crackled under the knife at every point, and were observed to fill up the whole length of the canal as far as the os internum.

The woman has since this been sounded regularly twice a week. The cervical canal now permits the sound to pass with ease, and her menstruation takes place entirely without pain.

Case V.—Mrs. C. A., aged 38 years, from Stockholm, married since twelve years ago. As a child she was not very robust, and was troubled with chlorosis before the first advent of the catamenia. This occurred when she was fourteen years old, the bleeding continued two or three days and was preceded by pains in the back. Menses since returned regularly after four weeks' intervals, lasted generally five to six days and were preceded usually by pains in the back, which ceased after menstruation came on. She has borne three children. Her two first labors were very easy. The last, which took place eight years ago, was very difficult. Previously, during pregnancy, she had been much troubled with constipation, and the most violent labor pains continued for two days. She had no important hemorrhage after the last parturition, but the placenta was manually delivered. Her present disorder (*retroflexio uteri*) she dates from the last delivery, particularly the severe pains in the upper portion of the hypogastrium, which were experienced as "a constant aching, which was indeed never relieved."

These pains in the lumbar spine and right groin have gradually become altogether more violent before the ingress of menstruation, and she has between the periods been much troubled with a discharge and general debility, especially a weakness in the legs and back. She has for several years past been treated by various physicians locally, with applications of zinc-alum crayons. The discharge after this was improved, but she had pains in the right inguinal region, and finally became so weak that she "staggered." During the close of 1874 and the year 1875 up to the month of August, the pains have been, before and during menstruation, still more augmented, whereas the condition has been the opposite in regard to the bleeding, which became more scanty, so that the last time scarcely any blood came away. The condition has for the most part been such that when the aching in the right groin and back had lasted some time, a little blood appeared, after which the bleeding stopped for a half or a whole day, and a "twinge" was felt throughout the intermission.

Status præsens, July 15th, 1875.—The patient is small in stature, but quite disproportionately fat and gross. She is very pale, but does not present any further appearance of sickness, though she is quite anemic.

The uterus is found to be retroflexed, and the entire cervical canal grown together through firm, hard and stiff connecting fibres, which were cut through with a fistula knife, whereupon they crackled just as when we cut through the tendo Achillis. Afterwards the uterine cavity, which was not inconsiderably dilated, was sounded twice a week, and the patient was relieved of her retroflexion through the employment for some time of AMANN's stem. She was in good health, until on the 5th of October 1875 she returned, suffering with intermittent malarial fever, but states that her pelvic organs are in sound condition.

II.—CICATRICAL STRICTURES.

These, as I have had the opportunity of observing—and all of which occurred in women who had not borne children—have had their seat in the external os. They

are recognized when the os externum is unusually small, a punctiform opening, surrounded by a great number of cicatricial furrows, of an ivory-whiteness, more or less deep, so that the external os itself resembles the central depression of a radiating cicatrix. It is impossible to introduce the common uterine sound through the stricture, which permits only a very fine elastic sound to pass. When the lips of the os are completely united with each other, these strictures become obliterating.

In consequence of the fusiform cervical canal in virgins (*"virgines quoad uterum"*), these have their seat principally in one or both ostia; according to KLOB, oftener in the internal than in the external os. How much they owe their origin to the original disease (ulceration), and how much should be attributed to the employment of powerful caustics, it is in a given case almost impossible to determine. It is certain that from a mild erosion a superficial ulceration may arise through a single application of nitrate of silver, which is usually healed without contraction, if we only desist in time from the use of the strong cautery. On the contrary it may happen, especially under repeated applications of powerful caustics, that from the superficial, a deep ulceration proceeds, which cannot be healed without producing a diminution in the calibre of the canal.

Case VI.—A. J., a midwife, aged 27, from Stockholm. She was healthy as a child. In her thirteenth year she began to be troubled with chlorosis. She had her menses for the first time when fourteen years old. They were preceded by and accompanied with severe pains, and the bleeding was very copious, but returned irregularly after intervals of eight, fourteen to twenty-four days. At no time did the interval between two periods constitute twenty-eight days. This state continued until she was twenty years old, when she was attacked with violent hemorrhages from the lungs. Menstruation then became more regular, returned generally after four weeks' interval, and continued three, at most four days, but the bleeding was very slight. In her twenty-fourth year the menses were absent during three months' time, without her ex-

perienicing thereby any suffering. At twenty-five years of age she was troubled to such a degree with pains in the abdomen, and particularly with an aching of the lumbar spine and in the inguinal regions before and during menstruation, that she was obliged to call in a physician. The local treatment consisted in repeated introductions of zinc-alum crayons.

Status præsens, March 10th, 1875.—The patient is of short stature, blonde, and quite fleshy. She is very pale, but otherwise has no appearance of sickness. Loud anemic sounds are heard over the vessels of the neck, and she complains much of weariness in the limbs, dizziness, and other symptoms of chlorosis, besides which she is troubled with chronic gastric catarrh.

With bimanual examination the uterus is found to be retroverted, but no worse than that its fundus is situated quite below the promontory. The mucous membrane of the vagina and of the vaginal portion, is intensely red. The vaginal portion is nearly four centimetres long and has a typical conical form; the external os is directed forward towards the vulva, and consists of an unusually small, punctiform opening, which is surrounded by a great many cicatricial furrows, so that the external os itself resembles the central cavity of a radiating cicatrix. A fine elastic sound (French scale, No. 5), only passes with difficulty into the uterus, which is not enlarged.

When the attempt to dilate the os uteri and cervical canal, by the introduction of larger elastic sounds, was unsuccessful, an operation was performed, on the 7th of July, at the patient's home, without chloroform. She was placed in Sims' position on the right side, and Sims' speculum and a retractor were then introduced. The uterus was fixed by means of a Sims' hook; then by the employment of KUCHENMEISTER'S scissors, bilateral incision of the lower third of the vaginal portion was performed; after which SAVAGE'S double-bladed hysterotome divided the remaining portion of the stricture as far as up to the neighborhood of the internal os. Some arterial bleeding was checked immediately by the injection of ice-cold water, after which the wound made in the operation

was, by means of a PLAYFAIR'S sound, penciled with chloride of iron, and a tent of hæmostatic cotton introduced into the cervical canal. The vagina was carefully packed with boracic acid tampons. The patient was carried to her bed. No unfavorable reaction occurred after the operation.

The dressing was changed daily, and on the 12th of July, and from that date, the patient was sounded twice a week with an elastic bougie No. 20, which was easily introduced up to the fundus uteri. She experienced a remarkable improvement in her sufferings after the operation, but still has the retroversion, as she cannot undergo the stem treatment ("stiftbehandlung"). She is troubled very constantly with pains in the lumbar spine and groins; besides which, her chlorosis and gastric catarrh continue, though improved.

October 19th.—An elastic bougie No. 18 passes easily to the fundus.

III.—CALLOUS STRICTURES.

These are recognized when the calibre of the cervical canal, in its whole extent or partially, is diminished through a prominent, cartilaginously hard, new formation of the connective tissue.¹ These strictures are perfectly analagous to those which occur in the male urethra, and on which VON PITHA² says: "Of all kinds of strictures the so-called callous are the most often observed; of the inveterate gonorrhœal strictures nearly all belong to this form." In accordance with what has been remarked above, it is still in dispute as to how much the origin of these strictures should be attributed to the disease (gonorrhœa), and how much to the treatment with strong caustics. Two of my patients (cases VII and VIII) had undoubtedly had blennorrhœa; but both had also been treated with repeated applications of zinc-alum crayons to the cervical canal. I do not hesitate to maintain that if these patients had been treated first antiphlogistically and afterwards hydro-

1 Heteroplasm of the submucous areolar.—TRANS.

2 Von Pitha: *Handbuch der Speciellen Pathologie und Therapie*. Band VI., Abtheilung II. *Krankheiten der Männlichen Genitalien und der Harnblase*, p. 184.

therapeutically, or with local astringents, the strictures would not have occurred.

A. *Circular Callous Strictures*.—Here the hard cartilaginous tissue, round about the canal, encroaches upon its calibre, extending to a greater or less length. In the former case the ring is like an elevated ridge, in the latter it has sometimes a sharp, projecting edge.

As an example of circular callous strictures of the latter class, allow me to mention

Case VII.—A. C., a seamstress, aged 29, from Stockholm. She was very frail and feeble as a child, and has also been troubled with chlorosis and disordered stomach as far back as she can remember. She became regular at fifteen years of age, but cannot state how far the bleeding was preceded by, or accompanied with pain, nor how long it continued. Yet she knows with certainty that after a difficult labor which she had six years ago, it was always very irregular and was preceded and attended by severe pains in the lumbar spine and groins. She does not deny that she has been affected with blennorrhœa, for which she was treated locally by the application of solid caustics (zinc-alum crayons). For a long time past she has been complaining of continually increasing debility and undefined pains in the abdomen.

Status præsens, May 29th, 1875.—The patient is of small growth, very thin and delicate, and has also the appearance of being consumptive. She complains of constant pains between the breasts, on the right side above the crest of the ilium, in the inguinal regions and lumbar spine. She is very anemic, and besides this is afflicted with gastro-enteric catarrh and retroversio uteri. The anterior lip of the uterus is fixed to the anterior roof through a short, sharp bridle, half an inch broad, which in the attempt to replace the retroverted uterus resisted considerably. The attempt at reposition gave the patient acute sufferings. The external os is a wide transverse cleft. An attempt to introduce the sound was unsuccessful, which was due to the fact that a centimetre from the external orifice, there was discovered in the cervical canal an annular callous stricture, which only with the greatest dif-

ficulty allowed a fine elastic sound (French scale No. 5) to pass into the uterus, which is of the normal size.

The stricture was now dilated by degrees with elastic sounds until No. 9 could be introduced, it was then incised bilaterally on a director, previously introduced, with a sharp fistula knife; after which a larger sound (No. 18) could be introduced. The patient was afterwards sounded twice a week with the ordinary uterine sound. She was for a short time subjected to the stem treatment after AMANN'S method, but experienced merely an inconsiderable alleviation on account of the resistance of the above-mentioned bridle, which I did not venture to cut through on the examination table in my consultation room, as BARNES has cautioned against it. Besides, the woman had, like the most of my patients, no time when she could desist from her fatiguing work, so that any additional operation at her home could not be considered.

She settled afterwards in a damp locality, on a low marsh; and was attacked with intermittent fever and a violent metrorrhagia, which did not yield until after the use of quinine internally and painting the interior of the uterus with fuming nitric acid. She now got up some time subsequently and attended to her vocation, but was again taken sick with perityphlitis, of which she died in August, 1875.

At the *post mortem* examination the mucous membrane of the body of the uterus and of the cervical canal was found to be very pale, of a glassy clearness, and glistening. Nowhere could any concentric atrophy of the uterine cavity, as a consequence of the impenciling with fuming nitric acid, be detected. In the cervical canal the rugæ of the mucous membrane had disappeared, but the canal had its normal form and proper calibre. Of the stricture no trace was seen. Surrounding the cæcum there was quite a large abscess, which proceeded from the appendix vermiformis, but in the true pelvis the peritoneum was pale and free from pus.

B. *Semicircular Callous Strictures*.—Case VIII.—Mrs. N. N., aged 36 years, from Stockholm. Married since twelve years ago, she has borne one child still living, which is

eleven years old, and she has also had two miscarriages. She became regular for the first time when seventeen years old. Menses appeared without pain, but she cannot remember how long the bleeding continued. Menstruation since returned regularly after four weeks' intervals, has continued three to four days and without pain. For about three years past she began to experience a difficulty in passing water, consisting in quick urgent cramps in the evacuation of the urine, besides an indescribable smarting after urination, and a thick yellowish discharge (blennorrhœa), which she believes she had possibly contracted from her husband. She then began to consult a physician and was treated locally with applications of zinc-alum crayons to the cervix. Latterly she has, though never previously troubled with any pain before or during menstruation, sometimes felt an aching in the lumbar spine, also stinging and lancinating pains in the right groin; but the menstrual blood came away as formerly, without a pang or anything different from before.

The patient was treated during the summer of 1874 and the winter of 1875 continuously with applications of zinc-alum crayons in the cervix.

Status præsens, July 10th, 1875.—The patient is quite tall, of large frame, with a very good supply of flesh. Her face is very pale; sorrow and physical suffering have left their impress there. She complains of constant distress in the abdomen, where she feels a heaviness and downward pressure. She is very anemic, her appetite is delicate and evacuations sluggish.

With bimanual examination the corpus uteri is found to be absent from its proper place in the pelvis and somewhat lower than common, but not enlarged. Somewhat more than an inch within the vulva the anterior lip of the uterus is reached, considerably swollen, having a hard, elastic feeling and a bright rose-red color. The os uteri forms a long transverse slit. Quite within the external os there is discovered—proceeding from the left side of the cervical canal and encroaching far in upon the canal—a ridge (semicircular, callous stricture), which occluded nearly the entire lumen of the canal, so that only along

the right wall enough space remains for a fine elastic sound (French scale No. 7) to pass with great difficulty into the uterus, the cavity of which is of normal length.

The patient left for her home (Gotland) and was again taken sick there with retro-uterine hæmatocele. After her return to the capital (in August 1875) she was so far restored to health that I believed I could begin to dilate the stricture of the cervix, which was done by introducing gradually larger elastic sounds (from No. 6 to No. 9). After the stricture became so much dilated, a director could be introduced, on the groove of which the stricture was cut through with a fistula knife. No bleeding. A tampon was applied to the cervix.

The patient was afterwards sounded regularly twice a week.

March 2d, 1876.—The patient has a retro-uterine hæmatocele, which extends up to the umbilicus.

Case IX.—Mrs. S. G., aged 31 years, from Stockholm. As a child she was quite strong, stout and fat. She became regular in her eighteenth year, without pain. The menses continued the first time for three days. They then returned regularly after four weeks and continued four days. At twenty years of age she began to be troubled with chlorosis and leucorrhœa. At the same age she was married. She has borne three children. During the last confinement she had pains in the stomach, but was relieved by the use of morphine and poultices. Yet she was troubled from that time with "a bad, distressing, yellow discharge," as if from a sore in the uterus, for which she was treated by a physician with repeated introductions of zinc-alum crayons; after which she noticed long, thick pieces of slimy membrane coming away, and copious bleeding following. Since this she has suffered from continually increasing pains before and during the menses, which became very irregular, at one time lasting two to three, at another time eight to ten days, during which the bleeding had an intermission of one or two days. Between the menses the abdomen has been very tender. She has not had blennorrhœa.

Status præsens, July 20th, 1875.—The patient is of small

stature, has a pretty good supply of flesh, and does not seem much sick. She is troubled, notwithstanding, with gastro-enteric catarrh and also fluor albus. The cervical canal allows only along its right wall a very fine elastic sound to pass, because immediately within the external os, from its left wall arises a ridge-like, semicircular cartilaginous growth. This having been cut through with a fistula knife, the patient was sounded twice a week.

March 1st, 1876.—The common uterine sound enters with ease to the fundus, but the patient continues to complain of her sterility.

C. *Diffused Callous Strictures*.—As the name implies, in these strictures the hard, cartilaginous structure has not assumed any determinate form, but spreads itself—to a greater or less degree constricting the calibre of the canal—unequally over different portions of its walls.

As an example of these, permit me to introduce the following:

Case X.—Mrs. E. M. H., aged 42 years, from Skonen. She reports that during her earlier childhood she in general enjoyed good health; but after she had attained her twelfth year, she began to be troubled, more and more every year, with chlorosis, which she ascribes to over-exertion and meagre fare. Her menses appeared the first time when she was sixteen years old. The interval between the periods has usually constituted twenty-six days, and the bleeding has in general not gone on for more than two days, but always preceded by and attended with intolerable sufferings in the lumbar spine. Before, and particularly directly after, menstruation she has been much troubled with “a severe discharge,” which considerably diminished her strength.

She has, in her twenty-three years' marriage, given birth to five children, of whom only two are living. She has had two miscarriages. The last conception which terminated in this way took place eight years ago.

Ever since the first parturition the above-mentioned pains in the lumbar spine during menstruation have been less severe than before. She was treated for several years with Hodge's pessary and the application of solid caustics

(zinc-alum crayons) to the cervical canal, for ulcerative cervical catarrh. She has never had blennorrhœa.

Status præsens, September 10th, 1875.—The patient is of medium height, thin and pale (anemic). She is troubled with symptoms of a long continued gastro-intestinal catarrh, and has suffered besides for a long time past with retroflexio uteri.

The os uteri, which was formerly a transverse fissure, is now a nearly round opening, surrounded by callous grooves, and allows a common uterine sound neatly and tightly to pass. The cervical canal itself is likewise considerably narrower than normal, and its walls are felt with the beak of the sound to be very uneven and unusually hard and cartilaginous. The orificium internum is passed with comparative ease by the point of the sound.

As the stricture is not any worse than will allow the introduction of an AMANN's stem No. 5, with which the patient feels easy and content, it is considered that no operative interference is required.

DIAGNOSIS.

The diagnosis of strictures in general is in most cases not subject to any uncertainties. In those strictures situated at the orificium externum and in the lower portion of the cervical canal, an inspection is sufficient: in those found higher up in the canal and at the isthmus, our attention is attracted by the obstacle thereby presented to the passage of the ordinary uterine sound. We pass on then to the finer metallic sounds, and finally to elastic bougies. After previous dilatation with a sponge tent and the separation of the lips of the uterus with two of SIMS' hooks, even those strictures situated higher become accessible to the sight, provided they are not situated too high up.

In making the diagnosis we should, however, be on our guard not to confound genuine strictures with any of the following physiological or pathological conditions, namely: the normal tone of the muscular fibres; spasmodic or inflammatory stricture; engorgement of the mucous membrane as the result of chronic catarrh; tumors, such as polypi, fibromata, ovula Nabothi; unusually deep fur-

rows between the folds of the mucous membrane in the cervix; congenital contraction of the calibre of the cervical canal or of its orifices; cervical elongation arising from a variety of causes; concentric wrinkling of the calibre of the canal from senile atrophy; flexions of the uterus, especially from atrophy occurring at the point of flexion, etc.

The great credit is due to H. BENNET¹ of repeatedly maintaing that in healthy women, in consequence of the normal tone of the circular muscular layer, the internal os uteri is kept contracted in the same manner as the anus; though we cannot in an anatomical sense speak of a sphincter of the internal os. In consequence of this physiological tone, the point of the sound meets with a certain resistance when the attempt is made to pass the isthmus; so much the more, when it is forced onward—in its resemblance then to any foreign body—does it instantly excite a more vigorous contraction of the circular muscular fibres; which, however, at once gives way on gentle pressure with the point of the sound, by virtue of the intrinsic elasticity of the muscular layer. The absence of this resistance, in the attempt to cause the point of the sound to pass the isthmus, occurs in many pathological conditions; it may be noticed commonly, for example, in chlorosis or enlargement of the corpus uteri from various causes, such as fibromata, chronic inflammation or incomplete involution after parturition. In regard to the opinion of H. BENNET just referred to, it is evidently correct that only in rare cases, with an abnormal *exaltation* of the above-mentioned muscular contraction, should the existence of spasm, or spastic stricture, be admitted; such a condition is more frequent in extremely nervous women, or with erosions or ulcerations about the isthmus, or with flexions. In contradistinction to the normal tonicity, this spasmodic contraction manifests itself when it is only with great difficulty and severe pain that the sound passes the isthmus, by which it is felt to be tightly grasped—and this in women who have not suffered from any such affection, or

¹ Braithwaite's Retrospect of Medicine. Vol. LXVII., Jan.-June. 1873, p. 305. Vol. LXVIII, July-Dec., 1873, p. 303.

been subjected to any such treatment, as could produce an actual stricture at that point.

The inflammatory strictures, which depend upon an excessive engorgement of the mucous membrane, as the result, for instance, of blennorrhœa, manifest themselves through the usual symptoms of an acute inflammation, and recede in the same proportion as the inflammation subsides. Long continued catarrhs produce engorgement of the cervical mucous membrane, which then is generally felt to be soft and flexible, in contradistinction to the condition in callous strictures. Tumors, such as polypi, fibromata, ovula Nabothi, etc., at the same time that they cause the distance between the walls of the cervical canal to become greater, also occlude its passage. They are usually accessible to the point of the index finger. With regard to the impediment offered to the sound on account of the depth of the sulci in the cervical mucous membrane, this happens only when we make use of a sound uncommonly fine. The circumstance that the ordinary button-sound can be introduced with facility, clears up any mistake. Congenital strictures of the cervical canal are met with very rarely. I have seen only one such case. It was that of a married lady, A. C., forty-eight years old, living here in Stockholm, whose vaginal portion was unusually small but conical, and the external os so contracted that only a very fine elastic sound (French scale, No. 4) could be introduced, and in the canal it was impossible with the point of the sound to make the ordinary manœuvres from side to side ("sidoexkursionerna"). The woman had always been very thin and troubled with anemia, had scant menstrual bleeding, and this explains why the dysmenorrhœal symptoms had been comparatively mild¹. She was sterile. Neither engorgement of the mucous membrane nor any trace of a cicatrix was discovered on the margin of the os uteri, for which reason the stricture was considered to be congenital.

If the cervix is elongated through stretching produced

¹ Courty, op. cit., p. 441.

for instance by the presence of an ovarian tumor,¹ this pathological condition explains in an unmistakable manner the diminution in the calibre of the canal. Concentric wrinkling of the calibre of the cervical canal from senile atrophy, or obliteration, of the os uteri—be it external or internal—such as occlusion resulting from ulceration or adhesion of the granulating surfaces, is seldom observed, and has principally a pathologico-anatomical interest, as the patients in general are unconscious of the existence of these alterations. Constriction of the isthmus by flexions is very rarely observed; and, we may say, exclusively in very old flexions, where atrophy has occurred at the point of flexion. In treating the ulcerative cervical catarrhs, which usually accompany flexions, through the repeated introductions of solid caustics,² strictures are produced of one or the other form.

PROGNOSIS.

The Prognosis comprises not only a consideration of the natural course of the disease, but also the prospect which the patient may have of being relieved of her affection. The disease itself constitutes a very serious lesion of the female sexual organs, depending not only upon the fact that it lies in the nature of the disease to become generally more and more aggravated, but also on the troublesome consequences which follow it, such as engorgement of the vaginal portion, hæmatocele, perimetritis, etc. A striking contrast to this view of the case is presented in the remarkable change for the better in the patient's entire constitution in short, which takes place after the operation.

1 [“. . . The cervix may be drawn up out of reach, or the whole uterus may be elongated, when the connection with an ovarian tumor is close; or the lower portion of an ovarian tumor may be so moulded to the true pelvis that the uterus is pressed upwards and forwards, or flattened behind the pubes.” T. SPENCER WELLS: *Diseases of the Ovaries; Their Diagnosis and Treatment*. London, 1872, p. 188.]—TRANS.

2 [Among the causes of cicatrices of the cervix, Dr. Skene mentions “destruction of the mucous membrane and subjacent structures by the free use of caustics.” *Cicatrices of the Cervix Uteri and Vagina*. By Alex. J. C. Skene, New York. Transactions American Gynecological Society. *Vol. I, 1876, p. 92.]—TRANS.

PROPHYLAXIS.

The Prophylaxis is the most important point. The principal rule is—in diseased conditions of the cervix, e. g., catarrh, ulcerations, etc.,—to avoid strong caustics.¹ As a rule in every uterine catarrh, whether simple, erosive, ulcerative or granular, the greatest attention should be bestowed upon the patient's general condition, and her chlorosis combatted by appropriate measures directed thereto. Local treatment may begin with a mild astringent, e. g., tannin crayons, and then if this proves insufficient, we may advance to the more vigorous, e. g., sulphate of copper, in more or less dilute solution (1:5 to 1:50); but under no circumstances ought we to make use of any agent which has been charged with the production of stricture²—its employment at least ought not to be re-

1 [Dr. Mary Putnam Jacobi, of New York, has made careful and valuable investigations in regard to "THE ACTION OF NITRATE OF SILVER ON EPITHELIAL AND GLAND CELLS," (*Transactions Medical Society State of New York*, 1875). These researches relate more particularly to the effects of the agent on the gastric mucous membrane, founded upon experiments on the lower animals, but have by analogy a bearing also upon its erosive action on epithelial and glandular structures in general.]—
TRANSL.

2 [Dr. Robert Battey, of Rome, Ga., recommends for the local treatment of uterine disease, a combination of iodine and carbolic acid, under the name of iodized phenol, which he has successfully employed for several years, and which has been very favorably received by the profession here.

For cancerous affections of the uterus the following formula is employed:

"Recipe No. I.—Take of iodine, one half ounce; crystalized carbolic acid, one ounce. Mix and combine the two by gentle heat."

For the more frequent and less violent disorders of the uterus, the above formula is mitigated as follows:

"Recipe No. II.—Take of iodized phenol, one ounce and a half; crystalized carbolic acid, one ounce; water, two drachms. Mix and make solution."

"This preparation has been very fully tested by the writer in a large number of cases, and in a variety of uterine disorders; e. g., chronic affections of the cervix, the cervical canal and the endometrium, uterine hypertrophy and subinvolution. It has been used both in its full strength and in various degrees of dilution with glycerine; sometimes two-thirds the above strength, sometimes one-half, one-third, and even one-fourth. The strength used has been determined, first, by the mode of application proposed; second, by the energy of the effect desired; and third, by the tolerance of the patient." * * * "Of the immediate effects of this treatment, it may be said that the pain inflicted, even by the strongest application, is for the most part very trifling, and in quite numerous instances, absolutely none at all. In this respect it presents a striking contrast to the nitrate of silver. The carbolic acid, acting as a local

peated. Against obstinate catarrh, or chronic blennorrhœa, the cold water cure constitutes the first remedial measure, so as to ensure hydro-therapeutic treatment, and in most cases a modified one—e. g., with cold spongings in the morning and cold sitz baths in the evening—is sufficient to inaugurate the patient's cure.¹

anæsthetic, allows us to make powerful caustic applications of the iodine with little or even no pain." * * * "Whatever may have been the strength of the applications, stricture of the os and cervical canal, too often an unpleasant sequel to the use of nitrate of silver, has not resulted in any case. When applied to the cervix and cervical canal, in a caustic way, the reproduced tissue is normal and not cicatricial in character. It is believed that the very full absorption of iodine by the uterus, in this method of treatment, exerts a decidedly alterative influence over the diseased organ; and more than this, the iodine thus carried into the general circulation is highly beneficial as a constitutional remedy also. It may, therefore, be confidently asserted that iodized phenol should have a place among our topical applications to the diseased uterus."—*American Practitioner*, February, 1877.—TRANSLATOR.

1 [For two of the most concise and comprehensive brochures in the literature of the subject, on the treatment of diseases of the uterus, see "SURGERY OF THE CERVIX IN CONNECTION WITH THE TREATMENT OF CERTAIN UTERINE DISEASES," (*American Journal of Obstetrics*, Feb. 1869), and "THE PHILOSOPHY OF UTERINE DISEASE," (*New York Medical Journal*, July, 1874). By THOMAS ADDIS EMMET, M.D., of New York.

The latter article, among other valuable teachings, contains Dr. Emmet's method of treatment by the hot water vaginal injections, which in its striking results marks an era in uterine therapeutics.

In regard to the use of caustics, Dr. Emmet here says: "Rare indeed is the necessity for applying, within the uterine canal, caustics, the cautery, or the strong mineral acids. It is true that these remedies act promptly, so far as to heal an erosion and to check all uterine discharge. But we cannot restore the patient to health by so far changing the character of the mucous membrane as to leave a mere cicatricial surface. Our ultimate success will be directly in proportion to the condition in which we leave this membrane, for we will need its healthy action in the after-treatment of the case. That individual cases escape with but little damage is only due to protection afforded by the secretions: yet the practice, as a rule, is disastrous enough to deprecate their use. We have no remedy which will act with more promptness than the nitrate of silver, when applied to the mucous membrane of the cervix, yet it has done more damage than any other. From being in common use it is the more dangerous, for its repeated action will ultimately destroy the mucous follicles, harden the tissues, and close the os as certainly as the application of the actual cautery. The evil effects of its application on the mucous membrane of other parts of the body are so well recognized, that its continued use for the uterine canal is remarkable.

"I have found most useful for applications to the cervix, Squibb's impure carbolic acid, or creosote-tar. Its action is very different from that of the pure carbolic acid; it exerts a local anæsthetic effect, and is not a caustic. This may be applied at intervals of ten days with the intermediate use of tannin and glycerine, or the *pinus canadensis*. It is advisable to add to the last pint of the hot water injection a certain quantity of chlorate of potash, chloride of sodium, borax, carbonate of soda, or alum, as may seem indicated."—TRANSLATOR.

TREATMENT.

The object of *treatment* is the re-establishment of the normal calibre of the cervical canal, and this is no easy problem to solve. There are principally three methods: which have been employed for accomplishing this result, namely: forcible dilatation, gradual successive dilatation with elastic sounds, and incision.

With the forcible dilatation, with PRIESTLEY'S or ELLINGER'S instrument for example, I have no experience, and I should scarcely ever venture to employ this method for the reason that, on account of the inflexibility and hardness of the cervical mucous membrane, one can never determine beforehand where the rupture will stop. In regard to the second method, or gradual successive dilatation through the introduction of larger and larger elastic bougies, I can from my own experience assert that it does not accomplish the object, notwithstanding the warm advocacy of COURTY,¹ W. CUMMING,² M. DUNCAN³ and others. There remains consequently only the incision, which is recommended by BARNES, SCHROEDER, HEGAR and KALTENBACH, BEIGEL and others. But upon this I will first of all remark, that there is a difference, inexpressibly great, between the division of a stricture, which—in its resemblance to internal urethrotomy—is an easy operation, and incision of the *entire* cervix with a double-bladed hysterotome; and this seems to me a dangerous point in regard to the latter, that the veins about the internal os are very large and present the appearance of more or less rigid tubes, and besides the largest branches of the hypogastric artery enter the uterus at this point.⁴

1 Courty, op. cit., p. 447.

2 Braithwaite's Retrospect of Medicine. Vol. LXVIII., July-Dec. 1873, p. 306.

3 Ibid. Vol. LXVII., Jan.-June, 1873, p. 304.

4 [In regard to the necessity of avoiding the incision of the internal os, Dr. Robert Barnes expressed the following views at the meeting of the American Gynecological Society, in New York: "I have known fatal results to follow the operation of incision [of the os internum]; and cellular inflammation, etc., are not rare consequences. It is unquestionably a dangerous operation, for we cannot tell how near the vessels are to the surface; moreover, they traverse a dense tissue, where, if cut, they cannot be easily controlled; finally, the incision is also favorable to the entrance of septic matter." * * * * *

The method of operating, to which I give the preference, is that adopted by SCHRÖDER, because it is simple and practical. It is of essential importance that before the operation an earnest study should be bestowed upon the special case presented, which should be, as much as possible, individualized; so that the method of operating shall be accurately adapted to the previously existing condition. In the performance of the operation itself, it is well to do neither too much nor too little, but to observe the golden mean.

Not a few instruments, particularly hysterosomes, have been constructed for performing the operation as simply and easily as possible. It would be too tedious here to enumerate and give a description of them all; therefore I will confine myself to a statement of how experience has taught me we may proceed.

The patient having been placed in the side position, SIMS' speculum and a retractor are introduced, and the vaginal portion fixed with a SIMS' hook. Chloroform as a rule is not generally employed, because the operation is accomplished without the patient's being conscious of it. We should, through bimanual examination, and in the last moment through repeated pressure with the point of the index finger against the anterior and posterior roof, inform ourselves accurately as to the shape and position of the uterus.

With an obliterating stricture a straight fistula knife is introduced gently and slowly through the external os, in the direction of the canal, until we feel that the resistance is overcome. The knife is then withdrawn, and the pointed branch of KUCHENMEISTER'S scissors introduced into the cervical canal, the hook of the other arm is fixed in one side of the cervix at some distance from the roof, and with a quick cut this side of the vaginal portion is divided, the scissors are then revolved a half circle on

"For division of the os externum as a means of relieving dysmenorrhœa, the incision need not be large, and need not extend so far back as the insertion of the vagina: it can easily be accomplished by a minor operation, and is most conveniently performed by means of scissors. In some cases the tissues undergo a certain amount of contraction, and the operation may need to be repeated; success, however, usually attends the first operation."—*Trans. Am. Gyn. Society*, Vol. I., 1876.]—TRANS.

their axis, and the same proceeding repeated on the other side of the vaginal portion. Should the cervix be unusually long and conical, and the cervical canal narrow also, I am in the habit then of immediately introducing a SAVAGE's hysterotome nearly to the extent of an inch into the canal, but at the same time with the greatest care avoiding the entrance of the point of the instrument within the internal os; after which a bilateral cut of the proper depth is made through that portion of the cervix which was not divided by the scissors. With cicatricial stricture merely of the external os, bilateral division with KUCHENMEISTER's scissors, or incision with MARION SIMS' knife, is sufficient.

The callous strictures, if they are of a high grade, are dilated by introducing, one after the other, larger elastic sounds, until a director can be introduced, on the groove of which the stricture is divided unilaterally, or bilaterally, with a sharp fistula knife.

The ethmoid strictures are dissected up by incising the strong fibres of connective tissue until we perceive that the resistance is overcome, when the uterine sound can be introduced with ease and make the ordinary side excursions.

As the hemorrhage has in general been so inconsiderable, and no unfavorable reaction has ever been observed after the operation, I have not thought it necessary to enter into a minute detail of all the operations which I have performed on the examination table in my consultation room—with the exception of Case VI. I will add, however, that all the operations were undertaken in the warmest season of the year, and in patients belonging to the laboring, or at least to the more tolerant, class; and whose time did not allow them unnecessarily to remain in bed a single day. During the cold season of the year and in more delicate persons, I never operate otherwise than at the patient's home. On all occasions I stand on the side of those writers who advise the very greatest circumspection. In general, I have, after operating, merely painted the surface of the wound, made by the operation, with a solution of chloride of iron by means of PLAYFAIR'S

sound, until the bleeding ceased, and have then introduced a tent of gossypium hæmostaticum into the canal and carefully tamponned the fundus vaginæ with boracic acid tampons, which were daily changed. Yet before this was done a solution of permanganate of potassa was injected, after which the track of the wound was opened up by manipulations with the sound. I have never introduced sponge tents after the operation. On and from the fifth day after the operation the patient has been sounded regularly twice a week with large elastic bougies (No. 18-20) or with the ordinary uterine sound.

Any troublesome consequences after the operation, such as thrombosis, oophoritis, peri- or para-metritis, septicæmia or the like, I have hitherto never experienced.

CONCLUSIONS.

[From the foregoing, the TRANSLATOR recapitulates Dr. EKLUND's views in the following synoptical statement:—

1. That from a general review of the medical literature of various countries, strictures of the cervical canal and of the internal and external os are becoming more and more frequent every year.

2. That a variety of different causes may produce stenosis; but that, practically, it is of the greatest importance to discriminate accurately between the most frequent and certain causes, and those, on the other hand, which only very rarely exert this influence.

3. That it is entirely undemonstrated that blennorrhœa¹ is the essentially originating cause, as these strictures constitute in prostitutes—who are most subject to blennorrhœa, and to an intense degree—a very rare or else little noticed disease. And that, consequently, far less have we reason to believe that stenosis of the cervix in

1 [It will be observed that during the course of this paper the author has used the term "blennorrhœa" in its comprehensive and etymological signification—a *flow of mucus*, whether depending upon a specific virus or upon the various conditions giving rise to uterine catarrh in its various forms. Hence, it is synonymous, sometimes with gonorrhœa, and sometimes with leucorrhœa; the context, however, in each instance, rendering the meaning plain, I have preferred here, as well as in the use of other expressions, to give a literal translation, and adhere to the nomenclature employed by the author].—TRANSL.

married women is produced by gonorrhœa in their husbands, even admitting—though only exceptionally, and far from being the rule—that from a gonorrhœa in the husband originates acute blennorrhœa in the wife. Also, that many cases come under observation, both married and single, who have evidently been afflicted with blennorrhœa for ten, twenty or thirty years, without strictures occurring in the cervical canal. And that, therefore, we cannot adjudicate to gonorrhœa any special prominence among the causes of these strictures.

4. That, of the diseased conditions affecting the cervical canal, catarrh, from its frequency, is the most prominent—exhibiting different intensities, from simple catarrh, through the intermediate erosive and ulcerative forms, up to the severer forms of granular (vegetating and fungous) catarrhs. That the milder forms of uterine catarrh, even in conjunction with erosions, may recover under a proper treatment, directed merely against the general derangement; and that the ulcerations so often observed are usually healed without cicatricial contractions, if we only refrain from the use of powerful caustics: whereas, the more extensive ulcerations and granulations demand local treatment, in which we must determine to employ such agents as shall counteract, if possible, the tendency to cicatricial contractions, which the severest forms of this pathological condition necessarily occasion. That for effecting a cure of these conditions the most varied forms of caustic and astringent agents have been recommended and employed, from the ferrum candens down to the mild vegetable astringents.

5. That in the lighter forms of uterine catarrh the introduction of tannin crayons—as recommended by Prof. A. Anderson, of Stockholm—is an excellent application. That in the severer cases with ulcerations, hypertrophy and neoplasms of the papillæ, the best agent is sulphate of copper, with which in dilute form (1:5 to 1:50) the author has had extensive experience, applying it by means of an applicator to the entire interior of the uterus—it being very efficacious, without being followed by any inconvenience, such as erosion of the mucous membrane.

which is produced by some of the other agents employed.

6. That, belonging to the first or most frequent class of causes, is the abuse of solid caustics—standing in the foremost rank—producing deep solutions of continuity, when employed in the treatment of pathological conditions within the cervical canal: and that, thus, all who employ caustics in daily practice, become chargeable with producing stenosis of the cervix.¹

7. That neither can traumatism during parturition, nor the puerperal inflammations, be regarded as prominent among the producing causes. In regard to the former, although the lacerations which occur in the cervix, heal with a cicatrix, yet on account of the enormous dilatation of the cervix during parturition, the calibre of the canal afterwards shows a dilatation which is most considerable at the external os, or just at that point where the lacera-

1 [In further confirmation of Dr. Eklund's views, in regard to the abuse of solid caustics, I note also the following, from Dr. Emmet: "The nitrate of silver in the solid form is in more common use, from its supposed mild action, than any other agent for local treatment; yet from indiscriminate and too frequent use it has done more harm than any of the strongest caustics. I grant that its use will heal an erosion promptly and sooner, probably, than any other means we have at command, but it is accomplished at the expense of an impaired vitality of the parts. Its use I have almost entirely abandoned, and confine myself chiefly to a solution not stronger than forty grains to the ounce, to aid the action of some previous application. It is not that I would so much deprecate its use in the hands of an expert, but, from its convenient form, it is too great a temptation for many who are the most ignorant to flatter themselves that they have mastered the art as a specialty when once in possession of a portecautique and a speculum. This practice has become a scandal to the profession. * * * As I confine my local treatment chiefly to the canal, I do not use any of the caustics proper, for fear of contraction from cicatricial tissue; although I have observed that the tendency to its formation does not exist to the same extent within the canal, after the use of proper remedies, as on the surface of the neck."

"We are indebted, I believe, to Dr. Sims for the introduction of chromic acid in the treatment of uterine disease. It is a remedy which I have had in daily use for at least twelve years past, and my experience has been that its use is attended with less objection than from any other agent. It should not be used of a greater strength than equal parts by weight with water. Its effect then on healthy tissue is not greater than that of the strong tincture of iodine. It acts on a diseased surface as a stimulant and as an astringent, protecting it with a thin film, which usually is not thrown off from the uterine canal under a week. I am in the habit of applying it a day or two after each menstrual period, and after a week or ten days using various other remedies of a milder character as adjuvants. I think, as a rule, that we expect too rapid a result from local treatment, and are consequently tempted to resort to stronger or more prompt means than are necessary."—EMMET: SURGERY OF THE CERVIX.]—TRANS.

tions were deepest and most numerous. And, that we should as little adjudge to the puerperal inflammations any prominent influence in the production of stenosis; for, as often as these inflammations are met with in the uterus and its annexa, so seldom upon them can the production of stenosis be logically predicated. That the same reasoning applies to blennorrhœa as a cause; for, as before stated, while it occurs very commonly in prostitutes, stenosis of the cervix is in this class of women extremely rare, or else little noticed. Also, that the theory that strictures are produced in consequence of rupture of the ovula Nabothi, the granulating walls becoming adherent to each other, it is quite certain we very rarely have the opportunity of observing, if ever at all.

8. That among such causes as exert this influence very rarely, perhaps should be mentioned: deep spontaneous ulcerative lesions occurring during pregnancy; likewise, diphtheritic formations, and vaginal injections with caustic liquids; besides, in the non-gravid, contracting exudations after inflammations of the inner margin of the lips of the uterus, with or without ulceration.

9. That strictures of the cervical canal and of the internal and external os may be classified and tabulated as follows:

I.—OBLITERATING STRICTURES.

- A. *Totally Obliterating, or Adhesive in the Proper Sense.*
- B. *Impermeable in the Surgical Sense.*
 - a. *Adhesive Impermeable.*
 - b. *Ethmoid Impermeable.*

II.—CICATRICAL STRICTURES.

III.—CALLOUS STRICTURES.

- A. *Circular Callous.*
- B. *Semi-circular Callous.*
- C. *Diffused Callous.*

10. That, in making the diagnosis, we should be on our guard not to confound genuine strictures with any of the following physiological or pathological conditions, namely: the normal tone of the muscular fibres; spasmodic or inflammatory stricture; engorgement of the mucous mem-

brane, as the result of chronic catarrh; tumors, such as polypi, fibromata, ovula Nabothi; unusually deep furrows between the folds of mucous membrane in the cervix; congenital contraction of the calibre of the cervical canal or of its orifices; cervical elongation arising from a variety of causes; concentric wrinkling of the calibre of the canal from senile atrophy; flexions of the uterus, especially from atrophy occurring at the point of flexion, etc.

11. That, as to prognosis, it is in the nature of the disease to become more and more aggravated when left to itself, and to be followed by such serious results as engorgement of the vaginal portion, hæmatocele, perimetritis, etc.; and that standing in striking contrast with this view of the case, is the prospect which the patient has of a remarkable change for the better in her entire constitution, after the operation.

12. That the prophylaxis is the most important point; the principal rule of which is: In diseased conditions of the cervix—catarrh, ulcerations, etc.—avoid the use of powerful caustics¹.

13. That, in regard to operative treatment, of the three measures employed—forcible dilation, gradual dilation, and incision—the last is the only method to be relied on or recommended.

14. That, before operating, a careful study should be made of each case presented, which should be as far as possible "*individualized*," so that the method of operating shall be accurately adapted to the existing condition—some cases requiring simple incision of the stricture, as with SIMS' knife, etc., others bilateral division of the cervix, below the external os, with the proper instruments, such as KUCHENMEISTER'S scissors and SAVAGE'S hysterotome. That from the fifth day after the operation the patient is to be

1 [PROF. T. GAILLARD THOMAS, of New York, in his chapter on Dysmenorrhœa (*Practical Treatise on the Diseases of Women*, fourth edition, p. 587), says: "Contraction of the cervix may be congenital, or may result from inflammation of the mucous lining of the canal, diminution of its calibre by contraction of lymph poured out into the parenchyma, or from the use of strong caustics within the os. The last cause is a prolific one, the condition seldom failing to result from the passage of the actual cautery, or potassa cum calce, into the canal of the cervix."]
TRANSLATOR.

sounded regularly twice a week with large elastic bougies (No. 18-20), or with the ordinary uterine sound.

15. That in all particulars—as to time, place, method and extent of operation, dressings, antecedent and subsequent treatment—the greatest discrimination and circumspection should be observed.

16. That after the method of treatment recommended, very satisfactory results have been obtained, and no troublesome consequences have ensued.]

PROGRESS OF GYNECOLOGY.

By J. G. WESTMORELAND, M.D., ATLANTA, GEORGIA.

No branch of medical science has made more decided advancement in the past quarter of a century than that which relates to diseases peculiar to women. The harassing and often fatal difficulty, vesico-vaginal fistula, first engaged the attention of the American genius and philanthropist, Dr. J. Marion Sims, some thirty years ago; and others profiting by his labors, have afforded relief to many of this unfortunate class of females. From time to time improvements have been made in the manner of operating, and now vesical openings into the vagina are permanently cured by the ordinary gynecologist with as much certainty and ease as any disease of these organs.

The success of his operations gave Dr. Sims prominence as a specialist in the treatment of female disorders generally, requiring a larger field than his home in Alabama would afford. Even New York has not proved sufficient for his growing fame and ambition, and now he is being consulted by suffering females in England, France and Germany. His fame is well merited, he having worked a real and lasting benefit to humanity without humbuggery or deception. For this he will always be held in high esteem.

The success of Dr. Sims has awakened thought and investigation of other hitherto incurable female affections. The profession had for a long time been annoyed with the

treatment of various troublesome symptoms, whose origin was not more perfectly understood than a century before. Indeed, the ancients seemed to have a more correct idea of the cause of some of these, than practitioners of the present age. For instance, the name given to certain symptoms by those practicing the healing art centuries ago, was said to be a misnomer thirty years since, but is now considered indicative of their true cause. *Hysteria*, the name by which a certain train of nervous symptoms are known, was given by the ancients, and certainly indicates disease of the uterus. Less than half a century ago this origin was disputed, but now all intelligent physicians know that uterine derangement leads to such nervous symptoms.

Advancement in gynecology has not only led to an acknowledgement of the origin of hysterical symptoms, but to the investigation and proper treatment of organic uterine disease upon which they depend. Not only so, but other symptoms of womb trouble, such as leucorrhœa and prolapsus are now, thanks to this advancement of science, rarely mentioned by intelligent practitioners as diseases to be treated. Even retroflexion, antelexion, dysmenorrhœa, etc., are now being alluded to, and properly, we think, as the result of organic lesion.

Until comparatively a recent date, authors of standard works (who, by-the-by, fear the effect of innovations upon their sales) wrote knowingly of treating leucorrhœa by constitutional means. Even now dysmenorrhœa, from whatever cause, is treated by some as in the days of Dewees, with the so-called emmenagogues, without investigation as to the pathological condition of the uterus.

Pessaries, which sometimes, though rarely, serve as auxiliaries in the cure of uterine disease, are now looked upon as of doubtful efficacy, whereas they were once used as the only means of relief in the various forms of displacement.

Although abnormal positions of the organ may be the result of mechanical pressure, such as distended bladder, ovarian or other pelvic tumor, yet in a very large majority of such cases they depend upon organic lesion. En-

gorgement, interstitial deposits, etc., giving increase of specific gravity, tend very much to displacement; and adhesions, from chronic inflammation dependent upon the congestion, are likely to render flexions more or less difficult of adjustment. Indeed, irregular deposit from inflammatory condition of the uterus may cause flexion which cannot be remedied without absorption of the semi-organized lymph, deposited, it may be, in one side of the cervix or body.

Leucorrhœal discharge, which may sometimes depend upon urethral or vaginal irritation, generally will be found to proceed from the uterine cavity, and will, then, cease only after intrauterine irritation has been allayed.

Various modes of rational treatment of the womb have been advised, to suit the various lesions to which the organ is subject. Congestion, which is often the precursor and common attendant of chronic metritis and endometritis, is relieved by local depletion. To this end, leeches, punctures or incisions, for the abstraction of blood, may be used successfully. Detergents, such as glycerine, are said to be also effectual for this purpose, when applied to the os and cervix by saturated cotton or wool. Advanced cases of chronic inflammation of the substance of the womb or its lining membrane, are relieved more promptly and perfectly by preceding more direct treatment with some of these depletory measures.

The important fact first to be remembered in connection with the permanent cure of endometritis, upon which displacements, leucorrhœa and reflex hysterical symptoms may depend, is, that *like all other chronic inflammations there will be a tendency to return for a longer or shorter time after being relieved, according to the length of time which it has existed.* The failure to recognize and act upon this fact, leads to many of the discouraging unsuccessful attempts at cure by proper means. Patient and physician lose confidence in rational treatment when they find symptoms of disease return after being absent for months. Without recognition of this inevitable circumstance, there is no permanent benefit in any treatment. It is therefore proper to mention it in advance of any mode.

Scanzoni, the great pioneer and fearless innovator in the study of organic uterine disease, failed to give this point due consideration, and became discouraged in his effort at permanent relief. Under the name of "uterine catarrh," he gave to endometritis its proper importance in the production of its various symptoms and results. That pathognomonic limpid albuminoid flow from the os he clearly described, and showed his idea of its constancy in the disease by making it a foundation for the name. Had this pathologist and independent thinker observed more closely the plan of guarding against return, he would have been more hopeful of permanent cure.

A case when apparently cured must be watched for months, and when of long standing, years, in order to arrest any tendency to return before too firmly fixed again. Like other mucous membranes, this, when in a state of chronic inflammation, requires the direct application of remedies in order to a cure. All the plans of treatment on this line amount to about the same when properly carried out. The mode of application is about the only difference. Indeed, various articles are applied by the same practitioner at different times and under different circumstances, but all belong to the same general class of medicines—local alteratives, cathartics, or mild cauterants. Sulph. zinc, iodine, carbolic acid, nitrate of silver, etc., are the remedies, and the application is made in various ways, according to the peculiar views of practitioners. All recognize the importance of having the remedy applied to the whole intrauterine mucous membrane. In effecting this, there are two important difficulties to be met. These are uterine colic, when liquid preparations are suddenly thrown into the cavity, and the increase of irritation by any substance with which the medicine is incorporated for ready introduction, on account of remaining too long in contact with the inflamed mucous membrane. Hence, the syringe has been discarded by some on account of seeing their patients thrown into violent suffering from it; and those introducing a pledget of lint saturated with a medicated liquid, finding irritation increased by its presence in the cavity for a day or two, have sought a

less objectionable plan. The probe wrapped with medicated lint, introduced and promptly withdrawn, was found less objectionable. This seems to have been the plan most generally adopted by those not accustomed to use the syringe safely, till the medicated cloth tent was invented and brought into notice by Dr. Taliaferro. The tent is of course subject to the same objection that was found to the lint, if suffered to remain in the cavity too long. The difficulty may be avoided, however, by removing it early, say in an hour after its introduction.

The syringe, perhaps preferable to all other modes of making application, is nevertheless subject to objection on two accounts, both of which, however, may be effectually overcome by experience and care in its use. Not only may colic be induced occasionally, as above stated, by suddenly injecting any liquid into the uterine cavity, but when too much of an irritating remedy is thrown in, so as to produce sudden violent contraction called colic, it may be forced through the fallopian tubes, find its way to the peritoneum, and produce fatal effects. Accounts of such result have been reported, but I have the evidence of more than a thousand instances that both difficulties may be avoided by injecting very slowly not more than fifteen or twenty drops of the liquid. This is a sufficient amount to give contact with the whole surface, and not enough, in case of colic, for any to find its way to the peritoneum.

With any judicious mode of application, promptly kept up, the chronic endometritis will gradually subside. It is generally, of several years standing before treatment is sought, and when the catarrh has ceased and all other evidences of disease have disappeared, the case is by no means permanently cured. In a few weeks, or it may be months, the catarrhal and hysterical or other nervous manifestations admonish the patient of returning disease, which must be met promptly in order to permanent relief. Owing to this tendency, patient and physician lose confidence in the treatment, and fail to give the case proper attention.

In the midst of this general discouragement in looking for a permanent cure, new plans of treatment have

been sought by some, while others relapse into the old routine of tonics, alteratives and nervous stimulants, and content themselves in giving ease and comfort for the time, rather than pursue a laborious plan of treatment with what seems a doubtful prospect of permanent relief, or adopt more heroic means with even less probability of success. In this state of affairs Dr. Battey conceived the idea that uterine disease ceased with the appearance of the menopause, and hence concluded to cure permanently the trouble by "normal ovariectomy." This operation consists in removing healthy ovaries, in order to cure uterine disease, by bringing on the change of life artificially. This dangerous measure was promulgated as a last resort, to meet the cases which had been treated by direct local means ineffectually, many of which were to be found, on account of the discouraging tendency to return above alluded to.

That menstruation is generally arrested, or that disease is eradicated from the uterus by the removal of healthy ovaries, recorded facts fail to prove. Of one thing, however, we are certain: disease of the uterus is not always relieved by the natural menopause. The writer has treated several cases much beyond this period of life; and one is distinctly remembered, which received treatment before the change of life and some ten years afterward also, for chronic uterine inflammation. The theory, therefore, that normal ovariectomy will produce the menopause or change of life, and that the change of life will work a cure of uterine irritation, chronic inflammation or ulceration, we think has not been sustained by facts.

The question then arises, "is there a field for normal ovariectomy?" We think there is a small field, notwithstanding the fatality of the procedure. Malformations, in which the ovaries exist without any womb; and cases where the ovaries are present with irremedial occlusion of the vagina require spaying. These are cases in which the risk of life by the operation is overbalanced by the tortures of an existence which will probably be terminated by the difficulty long before the ovaries lose their functions. Such cases we have seen, and in them advised

"normal ovariectomy," but it was not performed. The cases, if successful, would not have proved the correctness of the theory sought to be established by the operation, and were not accepted.

Dr. Sims decided that "normal ovariectomy" is a misnomer by Dr. Battey, and has named it "Battey's operation." The change seems to have been necessary, as the operation approved by him and others is made for diseased ovaries. In fact, an unhealthy condition of the ovaries is proved generally to exist where the operation has been found useful. Now, if the removal of diseased ovaries constitutes the procedure in question, as seems to be the case, it would look more like justice to Kentucky's favorite to call it McDowell's operation, as that distinguished surgeon was the first who performed the operation in America.

Editorial.

YELLOW FEVER.

We have before us a reprint from the Transactions of the Medical Association of Georgia, on yellow fever, its cause and treatment, by Dr. J. C. LeHardy, of Savannah, Georgia.

We are pleased to see such an able production from one present during the violent epidemic of the disease in 1876. Ingenious theories, however false they may be, are likely to impress the reader, and practically work serious injury to the public. This, we firmly believe, has been the case for many years in regard to the origin and cause of yellow fever. The idea of importation seems to have possessed the people generally since its first appearance in this country. The efforts, therefore, of municipal authorities, health officers, etc., have been expended in the wrong direction and uselessly.

Dr. LeHardy's patient, close observation of its ravages in Savannah, enables him to give something more than vague, unsustained theory. His narration of facts bearing on the subject of origin will, at any rate, excite doubts as to the correctness of the importation theory, and tend to the abatement of the local cause. This will doubtless lead to more beneficial results than the most vigorous system of quarantine that can be adopted. The doctor strikes upon the true cause of the disease in the marshes and pools on the outskirts of the city, and in calling attention to them as giving origin to the fever, will do more to protect the inhabitants against its ravages than the health officer and the whole United States navy can by quarantining. Dr. LeHardy's labor is not directed to the maintenance of a wild theory, void of practical and useful results, but to the adoption of means which will probably prevent the most deadly scourge to which Savannah is subject.

We are gratified to see that in New Orleans, where the fever is now raging, attention is being directed to the true origin of the malady. It is said: "the filthy condition of the city is owing partly to heavy rains forming stagnant pools on the low grounds," etc. "The board of health is censured for allowing the fever to spread."

If all boards of health would depend more on preventing stagnant pools, than frustrating commerce and travel by nonsensical quarantine, the people would be much better protected against yellow fever.

METRIC SYSTEM.

It is now certain that the metric system of weights and measures will be finally adopted in this country. Of its greater simplicity and its superiority, compared with our present system, there is no doubt. The difficulty is in computing in the new system relative amounts with those we have become familiar in the old. For example,

we have become accustomed to give twenty grains of certain solids and twenty drops of a liquid for the doses, and when they have to be expressed in grams we are at a loss without making a calculation. This can be overcome only by practicing the new system.

The international metric system not only simplifies by using decimals, but estimates liquids as well as solids by weight when used in small quantities.

METRICAL WEIGHTS AND THEIR EQUIVALENTS IN TROY
WEIGHTS AND MEASURES.

10 Milligrams (mg)	1 Centigram (cg.)	— 0.15 grains = 0.15 minims.
10 Centigrams,	1 Decigram (dg.)	= 1.54 grains = 1.54 minims.
10 Decigrams	1 GRAM, (gm.)	= 15.43 grains = 15.43 minims.
10 GRAMS	1 Dekagram, (Dg.)	= 2.57 drms. = 2.57 fl drms.
10 Dekagrams	1 Hectogram, (Hg.)	= 3.21 oz. = 3.21 fl. oz.
10 Hectograms	1 Kilogram, (Kg.)	= 32.14 oz. = 32.14 fl. or 2 O.

A box about one-third of an inch, or one centiliter square, will hold nearly $15\frac{1}{2}$ minims of water, which weighs nearly $15\frac{1}{2}$ Troy grains. The gram weight will balance this amount, and is therefore the equivalent of $15\frac{1}{2}$ minims. It seems, therefore, that a minim of water weighs one grain, and as 60 minims make a fluidrachm, and 60 grains a Troy drachm, the gram will serve for either, and hence the above table. Four grams will make about one teaspoonful, and sixteen grams a tablespoonful. The above table is sufficient for compounding prescriptions of fluids and solids; and the annexed equivalents in the old familiar weights and measures will enable physicians and apothecaries to estimate the gram and its divisions, until they also become familiar.

BIBLIOGRAPHICAL.

THE SCIENCE AND ART OF SURGERY, being a Treatise on Surgical Injuries, Diseases and Operations. By John Eric Erichsen, F.R.S., F.R.C.S., Surgeon Extraordinary to her Majesty the Queen, etc., etc. Revised by the author from the seventh and enlarged edition. Illustrated with eight hundred and sixty-two engravings on wood. In two vols. octavo, aggregating about two thousand pages. Philadelphia: Henry C. Lea. 1878.

This valuable text-book of Surgery having been en-

larged and revised by the author, may be said to be indispensable to the completeness of a medical library.

A MANUAL OF OPERATIVE SURGERY. By Lewis A. Stinson, B.A. (Yale), M.D., Surgeon to the Presbyterian Hospital, Professor of Pathological Anatomy in the Medical Faculty of the University of New York, with three hundred and thirty-two illustrations. Philadelphia: Henry C. Lea. 1878.

This work consists of one volume of 476 pages, and seems admirably adapted to the requirements of the practical surgeon. The various operations are succinctly described and plainly illustrated; and while the book does not take the place of text-books on the science and art of surgery, it will be found more useful as a hand-book in practice.

NERVOUS DISEASES: their Description and Treatment. By Allan McLane Hamilton, Fellow of the New York Academy of Medicine, one of the attending physicians at the Epileptic and Paralytic Hospital, Blackwell's Island, New York City, etc., etc., with fifty-three illustrations. Philadelphia: Henry C. Lea. 1878.

Nervous diseases, the most difficult of all others to understand properly, are treated of in this work on the style of older authors. The various organic lesions producing nervous disturbance are not, we think, made sufficiently prominent for a practical treatise on the subject of nervous affections. Primary nervous diseases, however, are described in a manner to make the book interesting and instructive to the general practitioner.

FOWNES' MANUAL OF CHEMISTRY, theoretical and practical, revised and corrected by Henry Watts, B.A., F.R.C. A new American from the twelfth English edition. Edited by Robert Bridges, M.D., Professor of Chemistry in the Philadelphia College of Pharmacy. With one hundred and seventy-seven illustrations. Philadelphia: Henry C. Lea. 1878.

This deservedly popular chemistry having undergone revision and correction to suit the progress of science, will most certainly find favor with teachers as a text-book for students.

HAND-BOOK OF OPHTHALMOLOGY. By Professor C. Schweizzer, of the University of Berlin. Translated from the third German edition by Porter Farley, M.D., Rochester, New York, with diagrams and other illustrations. Philadelphia: J. B. Lippincott & Co. 1878.

This book of 550 pages seems to be an exhaustive treatise on diseases of the eye, and will doubtless prove a valuable addition to the libraries of ophthalmologists.

PAMPHLETS RECEIVED.—Vascular Tumors of the Female Urethra: with the description of a speculum devised to facilitate their removal. By A. Reeves Jackson, M.D., Chicago, Ill.

The Application of Pressure in Diseases of the Uterus. By V. H. Taliaferro, Professor of Obstetrics and Diseases of Women and Children in the Atlanta Medical College.

Yellow Fever, the Epidemic of 1876 in Savannah. By J. C. LeHardy, M.D. Savannah, Ga. Reprint from the Transactions of the Medical Association of Georgia.

Sterility and its Treatment. By William H. Walthen, M.D., Clinical Lecturer on Diseases of Women and Children, Louisville; Medical Surgeon to the Female Department Louisville City Hospital. Reprint from the Transactions of the Kentucky State Medical Society. 1877. Louisville, Ky.

Certain Symptoms of Nervous Exhaustion. By George M. Beard, M.D., etc. Read before the New York Academy of Medicine April 4, 1878. Reprint from Virginia Medical Monthly.

Remarks on Social Conservatism. By J. W. Singleton, M.D., Paducah, Ky. Read before the Medical Society of Illinois, Indiana and Kentucky, at Evansville, Ind. 1877.

Cholecystotomy for the Removal of Gall-stones in Dropsy of the Gall-bladder. By J. Marion Sims, M.D., founder of the Woman's Hospital, New York, and formerly Surgeon of the same, etc., etc. Reprint from the *British Medical Journal*, June 8, 1878, London.

Minutes of the State Medical Society of Arkansas, at its Third Annual Session, Little Rock. 1878.

A New Rotating Urethrotome. By John A. Pritchett, Hayneville, Ala. Reprint from the *New York Medical Journal*, July, 1878.

The Soft Palate—its Value in Diagnosis. By Wm. Abram Love, M.D., Professor of Physiology in Atlanta Medical College.

COLLEGE ANNOUNCEMENTS RECEIVED.—Atlanta Medical College opens on 15th October and closes March 4th.

Savannah Medical College, November 4th, March 4th.

Medical College of Evansville, Indiana, October 1st, March 1st.

University of Pennsylvania, October 1st, March 1st.

Bellevue Hospital Medical College, October 2d.

Medical College of South Carolina, October 15, early in March.

College of Physicians and Surgeons, New York, October 1st, March 1st.

Louisville Medical College, October 1st, March 1st.

Medical College of Georgia, Augusta, Ga., October 1st, March 1st.

University of Georgetown, D. C., September 2d, April.

EXCERPTA.

INDIAN OBSTETRICS.

E. B. STEVENS, M.D.:

Dear Doctor—I have just received this, and it occurred to me it might be acceptable to the *Gazette* as a contribution report on Indian Midwifery.

W. H. TAYLOR.

WICHITA AGENCY, INDIAN TERRITORY, May 10, 1878.

DR. WM. H. TAYLOR, Miami Medical College, Cincinnati.

Dear Friend—I was called yesterday morning to an obstetrical case—occurring in the Pawnee camp. The child had just been born when I arrived, but a large tumor remained, and the husband suggested that there might be twins. On making examination I found the uterus quite distended with a soft, fluctuating body—not at all like a fetus. There appearing want of uterine action, I gave quinine and ergot, and awaited the establishment of suitable contractions.

The woman was lying on her back, on a pallet elevated at an angle of about forty-five degrees, with her knees raised and her feet resting on the ground, in a half sitting, half reclining posture. * When she began to feel the contractions she turned over on the couch, resting her knees and elbows at the angle named. I noticed her making some adjustments which I did not fully comprehend, and making an examination when a pain came on, I discovered there were two cords, and forcible traction was being made upon each of them.

Following these cords to their termination, I found them attached to two flattened stones, about the size of bricks, but thinner. Around these were tied pieces of cloth, and to each stone was attached the end of a cord. Upon the occurrence of each contraction these stones were so placed against the knees of the woman that she could, with a slight elevation of her body, draw upon the cords with as much or as little force as she desired.

The novelty and ingenuity of this method of making traction upon the cord forcibly impressed me with the ready wit of the Indian in adapting means to *ends* for each emergency.

The woman here becomes her own accouchuer, and hence the amount of traction is always proportionate to the quantity of strength she may have remaining to expend.

But in this case her tactics did not succeed, for I discovered that as she pressed upon the traction the blood would flow quite freely.

Inserting my hand into the uterus, I discovered that some adhesions existed between the placenta and walls of the uterus. Detaching these adhesions, I removed *two separate and distinct placentas*, each as large and as complete as an average placenta, and with a cord inserted in the centre of each. But one child was born, yet here appeared the accompaniments of two. The cord had been cut before I arrived, but the two cords appeared to unite near the umbilicus, some twenty-three or twenty-four inches from the placental insertions.

As in a similar case published by Cazeaux (fifth Amer-

ican edition) occurring in the practice of Dr. Ebert, the membranes formed a single cavity, and constituted the connecting link between the two placentas—these forming a kind of membranous bridge.

The extreme rarity of like recorded cases rendered this one exceedingly interesting to me. While I was studying upon this anomaly, the attendant squaws came in, and taking up the placentas, membranes, all soiled cloths, and even scraping the earth where blood had fallen upon it, wrapped all in a compact, oblong package, tightly corded, and carried it away for burial.

Other squaws came in with fresh earth and covered the floor where the couch was made, others brought in armfuls of freshly gathered weeds and placed them upon the earth; upon these the robes and blankets were spread, and the woman was comfortably disposed.—*Obstetric Gazette*.

A SUBSTITUTE FOR CALOMEL.—Sulphate of manganese, according to Dr. Goolden, in the London Lancet of June 15th, 1878, is a most excellent substitute for mercury in the various bilious troubles. In jaundice, hepatic dropsy, and hypochondriasis it has produced most remarkable results, and in hemorrhoids and in congestion of the fauces and bronchia it has proved no less efficacious. Anæmic patients who cannot take any of the preparations of iron are enabled to take iron with benefit if combined with two to five grains of sulphate of manganese. Its taste is not unlike that of epsom salts, but it is less bitter. Dr. Goolden prefers to administer the manganese in ten grains to a scruple dose, in a glass of water, adding a little citrate of magnesia to cause effervescence. By these doses large bilious dejections are produced. Half a drachm is the utmost dose ever necessary, and ten grains is usually quite sufficient. The larger doses sometimes produce decided, though temporary nausea, and this may be avoided by adding a small quantity of epsom salt. Its action is attended by neither griping nor depression; neither the heart's action nor the pulse is altered.

Dr. Goolden has employed this medicine freely in private and hospital practice for more than thirty-five years.
Medical Brief.

posits to accmulate in the bladder, which become a source of irritation and discomfort, and if the organ should fail to expel its contents entirely, it is the best every few days to introduce the catheter to remove them.

TREATMENT OF HYDROCELE BY INCISION PERFORMED ANTISEPTICALLY.—In a former report, attention was called to this method as described in an article by Volkmann. Dr. Genzmer gives a list of sixty-nine cases treated in this way without a single fatal result, and with no excessive inflammation, such as followed incision in the old way. The average duration of the stay of patients in the hospital was ten days. There was in but one or two cases an elevation of temperature of more than three degrees. The method is, in brief, to open the sack by an incision from three to four inches in length. The testicle is then examined, and if there is cheesy orchitis the diseased portions are laid open and scraped out. The edges of the tunica are then stitched to the scrotum with catgut sutures. The testicle now appears lying at the bottom of a gaping wound. A drainage tube is placed vertically upon the organ, and the edges of the wound are partly approximated by one or two deep silk sutures to prevent the testicle from escaping from the sac. Primary union of the walls of the sac takes place, and a slight granulating surface is left at the end of a few days to mark the site of the cut. The tube is removed usually about the fourth day, when the silk sutures are also taken out, and the dressing changed a second time at the end of a week. The wound is then dressed with benzoated cotton batting inside of a suspension bandage, and the patient discharged.—*Boston Medical and Surgical Journal*, June 27, 1878.

LACTOPEPTINE.—Pepsin is unquestionably a valuable remedy in some cases of indigestion, but does not seem to meet all the requirements of many dyspeptic cases. Lactopeptine is presented to the profession as meeting all the indications in cases of mal-nutrition and non-assimilation, composed according to the formula, of Ptyalin, Pepsin, Pancreatine Hydrochloric and Lactic Acids. It is claimed

to be a combination of all the digestive agents. If we can prescribe chemically for disorder of the digestive function, such a combination would appear worthy of a trial, and experience has demonstrated its value in many cases. Dr. Merritt remarks: "The more my experience in its varied applicability extends, the more its beneficial effects appear."—*Buffalo Medical and Surgical Journal*, Dec. 1877.

THYMOL, THE NEW ANTISEPTIC.—A rival to carbolic acid has certainly been discovered in thymol, the essential ingredient of oil of thyme, which is prepared either from the oil of thyme itself or by distilling the seeds of *Ptychotis ajowan*, an East Indian umbellifer, which contain from five to six per cent. of their weight of this body. This substance was first discovered by Neumann in 1719, but its antiseptic properties were first definitely recognized by Dr. L. Lewin, of Berlin, in 1875. Lewin, who worked in Professor Liebreich's laboratory, showed experimentally that solutions containing one part thymol per 1000 absolutely arrested saccharine fermentation; and that they powerfully retarded lactic fermentation, and checked various processes of decomposition, even when used in relatively small quantities. Lewin also first pointed out the comparative harmlessness of thymol internally administered; the absence of digestive disturbance after taking it, and its effects in checking abnormal fermentation in the stomach. He further directed public attention to the probable future of the drug as an antiseptic. Husemann's experiments, which were chiefly made on rabbits and frogs, went to show that thymol is ten times less poisonous to the organism than carbolic acid, and that hence in the quantities ordinarily used for antiseptic purposes, it may be considered entirely innocuous. He further showed that thymol is a far more powerful antiseptic than carbolic acid, that its local application to the skin, either as such, or in saturated solutions, had no irritant effect whatever, and that in animals poisoned by excessive doses, gastric erosions never occurred, as they do in carbolic acid poisoning, but that, on the other hand, nephritis, with albuminous urine, and extensive fatty disintegration of the liver, are nearly constant phenomena in these cases.

Professor Volkmann, of Halle, has introduced it into his clinic, and Dr. Hans Ranke reports the results as striking in the extreme. In the main, the general features of Lister's antiseptic dressings were retained by Ranke, thymol being substituted for carbolic acid. Since thymol is not entirely soluble in water in proportion of 1 to 1000, the following formula was, after the first few trials, exclusively used for antiseptic purposes: Thymol, 1 gramme; alcohol, 10; glycerine, 20; water, 1000 grammes. This "thymol solution," as it may be called for brevity's sake, has no corrosive action on instruments immersed in it, and in this respect is superior to solutions of carbolic, and still more salicylic acid. It causes, however, when sprayed over the hands of the operator, a lively sensation of burning, accompanied with redness of the skin, but otherwise has no irritant qualities. Anesthesia of the skin and epidermic desquamation, both of which are liable to occur under the use of carbolic acid, were never once observed in the case of thymol, nor did it exert any irritant action on the respiratory organs.—*Medical Times and Gazette.*

As THE busy season is fast approaching, we must remind those of our subscribers who are in arrears that we are prepared to receive their remittances. Many of them have written us during the summer that they would pay in the fall. We trust we shall hear from them soon.

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ATLANTA Medical and Surgical Journal.

VOL. XVI.] SEPTEMBER—1878. [No. 6

Original Communications.

THE METRIC SYSTEM IN MEDICINE.

By EDW. WIGGLELWORTH, A. M., M. D.

Instructor in Harvard Medical School and Physician to Boston City Hospital.

*Read before the Amer. Med. Association [Section of Practical Medicine,
Materia Medica and Physiology] at Buffalo, June 5th, 1878.*

In answer to the common question "of what special advantage will the metric system be to me, and what ought I to do to advance its introduction," it may be said that every one should do all in his power to further its introduction, since it possesses such great merits in general; that the best way to accomplish this is for each branch of science or education, every profession, trade, and occupation to promote the interests of the system to the extent of its power within its own sphere, in order that the sum of all these social parts may equal the whole community; and to be able to give a reason for the faith which is in it by the testimony, based on experience, of its individual members or adherents.

The special advantage accruing to one such member of a profession accrues to all its members, and the reason why the system is so rapidly gaining ground in the medical profession is well given in the Metric Bulletin for November, 1876:

I. "Because of its great convenience in writing and compounding prescriptions, in dividing doses, and in computing quantities required during given times.

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II. "Because physicians have learned what the system really is in their chemical studies, and to thoroughly understand it is to wish to adopt it.

III. "Because from the cosmopolitan character of medicine, a prescription from any one of the score of countries using the system is liable to find its way into a physician's note book, and it is a great convenience to be able to send it to the druggist without spending an hour in adopting it to our tangle of measures.

IV. "Because our medical men more than almost any other class, are free from that jealous conservatism and bigotry which forbid a fair examination of a thing, though it promises the greatest good, simply because it was not in the creed of their fathers.

"Weights and measures enter so little into the everyday life of the other learned professions—law and theology—that the interest in those quarters must be prompted by pure philanthropy, while every physician has a practical personal interest in the adoption.

"The druggists who have facilities for weighing and measuring in the metric system report a constantly increasing number of prescriptions written in the new form; and we may look to be cured (or killed) in accordance with the international measures before our clothes are made or our provisions dispensed in its denominations."

Scientific medicine has long employed the metric system as a matter of course; fine work demanding the best of tools. That the domestic drudgery of the general practitioner—prescription writing—stands also in need of the system is well shown by documents presented to the Comitia Minora of the county society of New York, which at the annual meeting, November 27, 1875, reported to the society the following resolution, which was adopted:

Resolved, That the Medical Society of the county of New York recommends to its members the use of the metric system in their prescriptions.

And also by subsequent editorials in the New York Medical Record based on these documents (New York Med. Record, Dec. 9, 16, 23, 30, 1876.) Thus, in the old method of prescribing, various units are employed, viz.:

the grain, scruple, drachm, and ounce, as measures of weight, and the fluidrachm, fluidounce, and pint, as measures of capacity. These measures of capacity bear the same name in England, but represent very different amounts; a source of great inconvenience in reading English books, and a source of practical danger even, since English made graduates are said to be imported and employed by American pharmacists.

There is another difficulty arising from the use of the same terms for both measure and capacity. One *fluid* ounce weighs 435.6 grains. Should the physician omit to place an *f* before the ounce-symbol (and many never insert this prefix at all,) it is the druggist's duty to supply a Troy ounce or 480 grains of the preparation demanded. The German druggists, as the rule, do this; the independent American takes it for granted that fluidounce is meant, and supplies that. The English solid ounce again is different style, being the avoirdupois ounce of 437.5 grains. The strength of ostensibly similar solutions of powerful drugs may thus be made to vary greatly.

Then, too, accurate measurements of capacity by means of graduated glasses are very difficult at best, while the ease in employing them leads to great carelessness, which would be obviated were weights alone employed. Moreover, the graduating glass themselves are roughly made, and sold at three dollars a dozen, showing that very little time or trouble has been spent upon their correct adjustment. A large proportion of the Troy weights in use in this country are also inaccurate, many of them seriously so; inspectors of weights not examining the prescription weights, but merely the avoirdupois. The same is true of the balances employed, many being incorrect; some not turning with fine weights, which are consequently estimated, while in other cases weights above half an ounce have been estimated by avoirdupois instead of Troy weight.

"The practice of medicine necessarily presents so many uncertainties that we should make an effort, if possible, to diminish these; and if we can secure uniformity in the dispensing of our medicines, we can eliminate at least one variable factor.

"In the metric system we deal with but one unit—the gram—equal to a little less than fifteen and a half grains Troy. All integral quantities are expressed in multiples of this, and all fractions in decimals, the decimal-point being always placed in its proper position between the integers and fraction, in the same way that we place the point between dollars and cents in our own monetary notations; and this is the whole of the metric system so far as it immediately concerns us. It is expedient for the present to write the word grams in full over the first line of figures." Instead of the decimal-point a perpendicular line, as suggested by Dr. W. Bolles, should be drawn from the top to the bottom of the right side of the prescription paper.

Drops might be allowable also in metric prescriptions, since we are to lose the minim, for which, practically, though not with justice, the drop is usually substituted.

Another merit of the metric system is its convenience in calculating and altering formulas (metric) when it is desirable to increase or diminish the quantity of the active ingredients; the quantity of the vehicle and of the dose remaining as at first.

The majority of objections to the new system have been raised by ignorant people, and are based upon misapprehension; thus,

I. "The system is complicated and difficult to learn." On the contrary, its simplicity is a great feature, and it can be fully acquired in half an hour.

II. "It will throw us out of uniformity with English practice." Only, however, as to weight. Our measures are different at present, and it throws us *into* uniformity with nearly all other countries; namely, with populations aggregating four hundred and thirty-two millions, whereas the population of England is only about thirty-two millions. By other populations numbering forty-eight millions it is already partially employed. Moreover, our best medical literature comes not from England, but from those countries—Germany especially—which use the metric system.

III. "We must forget the units of length, volume, and

weight to which we have been accustomed." Not at all; we merely *acquire new ones*, and employ these, and we shall very soon insensibly begin to think in the new system; which is to be acquired in the same way as a new language—namely, by beginning with it as we began with our own.

IV. "The druggists are not familiar with the metric system." On the contrary, they are far in advance of the physicians, and strongly in favor of its adoption.

V. "The druggists have not the requisite weights, and will calculate back into the old system and may make mistakes." All the best druggists have metric weights already. Those not having them can obtain complete sets for about six dollars—a sum which a single day will restore to them from their gain in metric prescriptions. We may also feel sure, as suggested by Dr. A. N. Blodgett (*Boston Medical and Surgical Journal*, December 21, 1876,) of "better drugs from a pharmacist educated to use this system than from one who has acquired his experience as a trade learned from his master. The metric system, therefore, seems to offer the following distinct and definite advantages: It dispenses with the signs of the quantities; it employs Arabic figures instead of Roman numerals; it assures the physician of more competent service from the pharmacist, and of a better quality of medicine, and reduces considerably the danger of mistakes on the part of the physician and druggist."

"It provides denominations of weights applicable to the smallest quantity which the physician or the pharmacist can be called upon to prescribe or dispense, the old grain being by far too large a unit for the measurement of the powerful drugs which modern chemistry has added to our *materia medica*. It is decimal in the character of its divisions, and we all recognize the facility of decimal arithmetical operations. By this arithmetical simplicity we are enabled more readily to appreciate quantitative ratios in our formulas, and in the resulting pharmaceutical preparations. It enables us to substitute magistral for officinal recipes, and if these were more extensively used, comparatively simple formulas would be readily impro-

vised to meet the varying exigencies of individual cases, the tendency to polypharmacy would be diminished, the study and practice of rational therapeutics would be facilitated, and the extensive use of patent medicines by physicians, which is the opprobrium of the medical profession in this country, would be lessened."—*T. B. Curtis, in the Boston Medical and Surgical Journal, Dec. 6, 1877.*

The metric system alone furnishes sufficient accuracy for the chemist and pharmacist. It is necessary in the microscopic measurements of the anatomist and physiologist, and in the microscopic ones of the surgeon. It gives to general therapeutics the centigrade thermometer and other instruments, and becomes daily more needful as general medicine crystallizes into specialties with their naturally and necessarily greater acquirements in science, and consequently greater requirements from art.

Thus, for example, Dr. E. G. Loring (*Boston Med. and Surg. Journal, Sept. 7, 1876*) and Dr. H. Derby (*Boston Med. and Surg. Journal, Oct. 12, 1876*), allude to the great superiority of the metric system in ophthalmology. Dr. Derby says, for instance, among various reasons for adopting the metric system, that the numeration of spectacle lenses is now based upon the metric system, and that the loss of one's eye-glasses in any part of the civilized world involves merely the expense of a new pair with the focal distance and other attributes of the lost lenses. Formerly the unit of the system in use was a one-inch lens, which was too strong for practical purposes, and therefore had no real existence. Moreover, this very system was variable, and to ascertain the strength of a lens of a given number, especially of a high one, it was necessary to find out in what country it was ground. The Paris inch differed from the English 36.94 of the former, 36.37 of the latter going to an inch. Between these came the Rhenish and Austrian inches, all different from each other. A patient asking for No. 2 in London, Paris, Berlin or Vienna, might receive a different glass in each place.

At a meeting of the Heidelberg Society in 1875, and shortly afterward at the Medical Congress at Brussels, Prof. Donders proposed the metric as the system of numer-

ation. It has been adopted by the most eminent ophthalmologists, and its use is daily spreading. In our own country the surgeons of the Boston Eye and Ear Infirmary voted in 1876, "that all future measures of length and refraction be recorded in and all glasses ordered on the metric system."

The advantage of this uniform numeration of spectacle lenses is obvious. Whereas, in old times, a No. 2 lens meant a lens of two (English, French, Austrian or Prussian) inches focal length, according to the country in which it was ground, it now means a lens equal to two lenses, and having a focal length of one meter, *i. e.*, a lens of fifty centimetres focal length.

Finally, in regard to volumetric or gravimetric methods, supposing the metric system to be adopted, it is a purely subsidiary question how we shall use it—that is, whether by weight or measure in prescribing. Measures may be used just as we use them at present in our "systemless system." But it is better to make the complete change at once, since we must come eventually to prescribing by weight alone; for

1. Prescribing by weight gives more exact results.
2. When once learned it is vastly more convenient.
3. It is perfectly easy to learn.

The only difficulty is in the apportionment of doses, since we must continue to allow the patient to take his medicine by the domestic measurement of spoonfuls. Now, these doses once learned will be more easily remembered by weight than by volume, since they will have been made in fixed proportions by weight only, and in the same way prescriptions as a whole will be more readily borne in mind. But there is no need even of this, for there is no trouble in estimating the volume, and consequently the dose, of fluids prescribed by weight; for whether reached by the use of weights or measures, the result is in either case the same definite bulk of menstruum, and is to be divided up, of course, in the same manner for doses. Thus the bulk of a mixture is either an infusion, a tincture, water, or a syrup. Of these the first three have specific gravities, which are, for practical purposes, identical.

The fourth is a third heavier than the others. What is, then, simpler than, when prescribing by weight, to prescribe of a syrup four thirds as much by weight as if we were prescribing plain water, which bulk can then be divided up by the patient into his time-honored "teaspoonful three times a day." Other liquids, the specific gravities of which vary markedly from that of water, are very simply never prescribed in bulk, and therefore need not be considered. The increased accuracy derived from the employment of weights more than compensates for any slight variation in the small amount of these liquids in a single dose of menstruum—a variation less than that in the idiosyncracies of different patients, or would even justify the plan proposed by Mr. Alfred Taylor, of "making the mixture up to a desired bulk by adding sufficient quantity of the vehicle or adjuvant." Moreover, fixed oils, liquids, acids and chloroform are by our present pharmacopœia directed to be always weighed. Why, then, stop these, since we need equal accuracy in regard to other fluids?

If the physician prefers, however, to be strictly accurate on principle, this also is possible. Prof. Maisch has called attention to the fact that neither the drop, the teaspoon nor the tablespoon possesses the exact value in bulk usually assigned to it; that evaporation and adhesion militate against accuracy in the use of volumetric methods, it even being difficult on account of the refraction of light and the thickness and coarseness of the measuring glass, to correctly ascertain the height of the liquid in such glass; that consequently gravimetric methods are preferable; and in the *American Journal of Pharmacy* for February 1, 1877, he discusses these points at length, and "shows that the physician may gradually accustom himself to the changes, either by using the table there given in converting the measures of different liquids into their corresponding metric weights, or by directing the apothecary to dispense them by this weight after converting the weight and measure now in use into grains."—*Boston Med. and Surg. Journal*, April 5, 1877.

To conclude, the gravimetric method is the one em-

ployed by all nations using the metric system, and it is of the highest importance to avoid courting a disagreeable notoriety by an affected and purposeless singularity, based upon indolence and selfishness. As the church with its common tongue, the Latin, is at home wherever churchism extends, so science, by promoting universally identical customs, thoughts and language, must hasten the approach of universal brotherhood, peace, knowledge, and consequently happiness.

After this paper had been read, the following resolution was unanimously adopted:

Resolved, That this section, recognizing the value of the metric system for its uniform, international, indestructible, generally applicable, convenient, simple, safe and scientific character, hereby recommend to all physicians the use of the same in their practice, and in their writings and teachings.

THE PRINCIPLES OF MEDICAL PRACTICE. FORMERLY AND NOW.

BY J. DICKSON SMITH, M.D., ATLANTA, GA.

At a point in the past history of medicine, and within the recollection of many practitioners of this day, its practice was dictated by theoretical and absurdly erroneous notions. The profession regarded diseases as real entities, possessing passions and volitious intentions inimical to human life; and by virtue of such malignant designs, diseases were considered the implacable foes of the human race. Such ontological view suggested imaginary strife for life and death, and placed the physician in the attitude of direct antagonism to diseases.

Hence the heroic practice in vogue at and anterior to this period already indicated. Looking upon disease as an extraneous foe that tended to pursue its ravages to the destruction of the life of the patient, the physician, assuming the aggressive, attacked it with violent measures, regardless of the damaging effects of his blows. He essayed to cure the patient by fighting and subduing his disease.

The physician, as well as the surgeon, cultivated the trait of boldness and daring, and aspired to reputation conferred by brilliant exploits and Waterloo operations. *Inflammation* was the disease, and *antiphlogistics* the remedies. The theory at that time entertained as to the nature and cause of inflammation brought into requisition a class of depletive and debilitating remedies, which tended to prostrate the patient and exhaust the vital forces. These were represented by blood-letting, cathartics, emetics, blisters, mercurialization, etc., and which were indiscriminately employed by authority of the theory and practice of the day for the arrest or subduction of the inflammation. Ignorant of the laws of pathology, the physician treated diseases under the general idea that they tend naturally to an unfavorable termination, and to prove fatal to the life of the patient unless cured by remedies. Hence they employed powerful remedies, and pushed them to an enormous extent, conjoined with a rigid system of dieting amounting almost to starvation. Most of the remedies employed illustrated the same aggressive spirit of attack upon the disease; and unmindful of the damaging effects of such blows upon the physical strength and vital powers of the patient, the practice was to invade the organism in search of the disease, for its arrest and subjugation.

Such epitome will suffice to indicate medical practice of twenty-five years ago, and anterior to that time. Without attempting to trace the history of medicine through succeeding years, we will notice some of the characteristic features of the sentiment and practice of our own day. Such comparison will develop a very striking contrast—indicating unmistakable advances in medical knowledge, and wonderful improvement in the management of most diseases. The practice has *materially* and *essentially* changed, and been placed upon a *distinctly different* basis. Actual knowledge acquired in the several departments of medical science has measurably unfettered the mind of the profession from the manacles of theory, system and traditional authority, and allowed sound sense and reason to exercise their rightful prerogative in dictating therapeutical indications in strict accordance with nature's laws. The great

light that now guides the medical mind, and directs its practice in the management of the sick has been but recently developed from the study of the natural history of diseases. This light brings to view, for our guidance in therapeutics, the grand *conservative principle* of nature, as exemplified in all her laws, and which, in relation to our subject, is so forcibly exemplified in the anatomical conformation, and in the physiological and pathological processes of the human system as to give evidence of its Divine appointment.

The practical recognition of this conservative principle, together with a series of chemical facts directly to be mentioned, constitute the source and basis of the distinguishing features of present medical practice as compared with the past. Upon these are based all rational therapeutical indications for the management of diseases. Of the laws of pathology enough is already known to establish the following facts: Most diseases possess an intrinsic tendency to pursue a definite career, and end in accordance with its law of self-limitation; most diseases tend to run a favorable course and end in recovery; a very large proportion of the diseases ending fatally reach that result by *asthenia* or *exhaustion*, and very few by *apnea*. Upon these facts from the laws of disease are based modern conservative therapeutics, and which distinguishes medical practice of to-day from the spoliative routine of twenty-five years ago.

The progressive practitioner of our day, instead of making war upon disease by violent means, quietly allies himself with nature for her protection and defense, and to guard her safely against the inroads and damaging effects of existing disease. Restricting himself simply to his legitimate office of *minister*, and not *master*, of nature, as formerly arrogated, the physician seeks to support nature in her faltering weakness, and, by safe therapeutic and hygienic measures, to maintain in the organism that degree of strength and vigor that will enable it to tolerate the disease till it has passed through its natural career. True, much may be done by way of mitigating violence of symptoms and palliating the painful effects of disease; yet the main power of the physician for good will be most

manifest by such alliance with nature in her efforts to guard the organism, hold in abeyance the spoliative effects of its malady, and counteracting its every tendency towards dissolution. In short, the legitimate office of the physician is rather to treat and care for the patient, than fight the disease that is quietly running its allotted course. It is also his province to secure the sick against the damaging effects of any injurious medication or meddlesome interference. Hence the measurable abandonment of that class of potential measures formerly employed as antiphlogistics. They interrupt the conservative designs of nature, fail to arrest or cure the inflammation, and are directly perturbatory, spoliative, and absolutely exhausting to the physical powers and strength of the patient. And, moreover, clinical experience renders it exceedingly problematical as to whether this class of remedies exert any material effect upon the intensity of inflammation, its results, or its duration; and consequently their depreciation in medical confidence, and comparative disuse in practice for such special object.

It is not to be denied, however, that the profession is possessed of very many valuable therapeutic agencies known to possess special alleviating and specific curative properties. But it must be admitted that the class of *specifics* and *curative* remedies is comparatively small—the main catalogue acting only indirectly as medicinal agents when applied in accordance with general therapeutic principles.

Medical practice, under the advanced and progressive sentiment of the present day, comprises everything calculated to prevent impairment of, or that tends to develop and sustain, the powers of life. Medication is withheld, or simple palliatives used, or active remedies employed with great circumspection, according to the case and the intrinsic tendency of the disease towards favorable or fatal termination. Abjuring officious interference, it prescribes active and potential therapeutic measures only with a view to well-defined objects, and in accordance with rational principles. It does not seek to control diseases by measures which, if not successful, may diminish the

chances of the patient passing safely through the several stages of the disease; and in cases known to be beyond the power of medicine to arrest or abridge, it seeks merely to modify and palliate the symptoms as they arise, and to keep up the patient with sustaining treatment. It reluctantly interferes actively with the course of diseases known to have a self-limited tendency. Instead of random shots at the disease with formularized prescriptions of potent drugs and nauseous draughts, we prefer to assist nature, by supporting measures, in enduring, and the vital forces in triumphing over, the invading foe.

Tonic medicines, alcoholic stimulants, nutritious diet, and the whole regime of hygienic influences, as supporting measures, constitute the important weapons of warfare to be wielded by the physician in the "struggle of life and death" between disease and the life of its subject. These sustaining measures tend to promote the conservative efforts of nature in placing and maintaining the system in the best possible condition for tolerance of the disease. Both common sense and experience endorse the plain proposition that, the nearer the condition of the general health is maintained towards its normal standard, the greater the chances for recovery from disease, and the better fortified is the system for enduring its continuance. Not many diseases prove fatal *per se*—death being generally caused, not by irremediable injury to the part affected, but by occurring complications, and the general disorder and failure of the vital powers. Hence the indication to endeavor to obviate the general disorder, prevent failure of the vital forces, and prolong life sufficiently for restoration. Valuable mechanical agents have by no means been discarded, but simply restrained by more discriminate reserve; and the expediency of employing them to be determined by due and careful estimate, in each individual case, of the comparative chances of their proving useful, or of shortening life by adding dangers of treatment to those of disease.

These conservative principles underlie and constitute the basis of modern therapeutics, and pervade every branch of practical medicine and surgery. By contrast with the past, the difference becomes strikingly apparent; and to

say that these changes have been favorable to society, and amount to material and wonderful improvements, is but to utter the language of chemical experience and mortuary reports. The ratio of recoveries has been greatly increased, and the average duration of life prolonged, in proportion as these changes in practice have taken place.

This fragmentary sketch of progressive medicine expresses the sentiment and practice of the vanguard of the profession; but this conservative practice has not yet been generally promulgated by the medical faculty, nor exemplified in the sick room by the mass of practitioners. Old Foggy still lags behind, content with his "lancet and pill-box," and unwilling to concede any eulogy to the Author of nature for his grand designs, or any skill in the protection of his own handiwork! The sluggard loiters in ignorance and content, but much the pity for that spot of society to which he assumes to dispense the benefits of medicine. These recent and wonderful evolutions in medical practice constitute a bright spot in the horizon of science and philanthropy, and reflect lustre upon the genius and enterprise of leading medical minds. The change is sound and logical as the laws of nature, and is destined to exemplify its truth and power in untold benefactions to society and suffering humanity.

Let us up and to the front, and so imbue our minds with the spirit of progressive medicine as to be ever capable of dispensing to society the utmost possible benefits of the noblest and most responsible of human professions.

[We must dissent from the general tone of the above article, in its tendency to the encouragement of expectancy. It is easy to pursue the routine of tonic and supporting treatment, but by it we lose the benefit of rational medicine. We like conservatism in all things, but when practiced unwarrantably, it becomes also an extreme, like that intended to be corrected. Forty years ago general blood-letting by some was perhaps practiced excessively, but we find much greater injury to suffering humanity in the opposite extreme now. There is no conservatism in discarding a valuable remedy. Unless violent acute inflammation be fought vigorously by sedative, counter irritative

and depletory measures, destruction of vital organs may result. Such remedies may prove injurious when improperly used, but when applied with judgment and skill, are often indispensable in the treatment of disease. Diseases are different, and even opposite in their nature, and require different remedies accordingly. It is some times necessary to stimulate one organ and at the same time depress another. Cardiac sedation and cerebral stimulation are often demanded in acute inflammation. Homœopathic reliance on *vis medicatrix naturæ* is a very easy course to the practitioner. Much mental and physical labor is saved by it, at loss to the patient.—EDITOR.]

ON THE TREATMENT OF BLENNORRHAGIC AFFECTIONS BY GURJUN BALSAM.

By DR. E. VIDAL, PARIS, FRANCE,
Physician to the Hospital of Saint Louis.

Translated, with the Consent of the Author,
By R. J. NUNN, M.D.

About a year ago, having received into my wards, at the Hospital of St. Louis, a woman about thirty years of age, affected with leprosy of the tuberculous and anesthetic variety, it occurred to me to treat her with Gurjun balsam or wood oil, an oleo-resin obtained from a tree of the family of *depterocarpees*, which had already been successfully employed in the treatment of leprosy by Dr. Joseph Dougall, surgeon-major of the medical service of Madras.

The flattering results obtained in 1873 in the Haddo leper hospital in the islands of Andaman caused this remedy to be officially recommended by the organ of the Marquis of Salisbury, in a circular addressed by the English government to the physicians of the Indian empire; and finally it has been highly praised by that celebrated dermatologist, Erasmus Wilson, who has experimented with it in London for the treatment of leprosy, of certain ulcerative affections of the skin, and of some forms of eczema, etc. etc.

At my request, a distinguished apothecary of Paris, Mr. A. Petit, procured for me from England a quantity of the balsam of Gurjun, and about the first of October, 1876, I commenced the medication of my patient. I began with a drachm (4 grammes) in emulsion as a draught, and I gradually increased the dose to a drachm and three quarters (7 grammes). Inunctions were also made night and morning over the leprous tubercules with a liniment composed of equal parts of lime water and Gurjun balsam. This treatment was followed by notable improvement. Continued, after leaving the hospital, in the daily dose of one drachm (4 grammes), combined with the inunctions, it effected a cure almost complete—that is, if I may credit a letter which I received June 3d, 1877; but in spite of the rather enthusiastic assertions of the patient, I am not yet prepared to admit more than an improvement, knowing how little reliance is to be placed on the transient remissions, the false appearances of cure in leprosy.

Dr. Dougall, who first conceived the idea of treating leprosy with Gurjun balsam, in his report on that subject, says that the medicine in question is commonly employed by the Benglese as a remedy for blennorrhagia. Previous to this, in 1838, Sir William O'Shanghnessy, of the Indian army, had suggested Gurjun balsam as an important succedaneum for copaiva, and even considered it preferable. Favorable results were also obtained in it by Dr. E. J. Waring (1852), Dr. Montgomery (1862), Dr. Henderson (1865), Drs. Rean, Kanny-Loll-Dey, Coulson, and Sir Ronald Martin.

Wishing to assure myself of the efficacy of this medicine, I have administered it in fifteen cases of urethral blennorrhagia—thirteen males and two females—with the following therapeutic effects:

After forty-eight hours there was a very marked alleviation of symptoms, an almost complete cessation of the pain which accompanied micturition, an increase of urinary secretion, and a very considerable diminution of the discharge, the color of which was already remarkably changed. From green or yellow it had assumed a whitish color, and had become of a rather thickish consistence.

On the sixth or eighth day the blennorrhagia had entirely ceased in the more favorable cases; in the others there was not more than a slight oozing in the morning, and by the tenth or twentieth day the cure was complete. It was delayed, however, to the twenty-fourth day in the case of a man to whom the medicine was administered in the acute stage, and whose treatment was further complicated by an attack of double epididymitis.

The most rapid cures affected were in cases of old discharges, blennorrhœas and blennorrhagias at the period of full development, when, the acute stage being passed, the pain during micturition had diminished, and the meatus was no longer red nor swollen.

According to experience, this is the stage of the disease which should be awaited before commencing the use of balsams. It is at this time that their action is truly efficacious; their earlier administration entails the risk of obtaining less favorable results, of retarding the cure, or even of doing injury.

Although in this regard I share the opinion to which all experimenters have arrived, still I infringed upon the rule, and to five cases I ordered the Gurjun balsam during the more acute period of blennorrhagia. In one of these cases, attacked with chordee, a senseless effort on the part of the patient to violently straighten the penis brought on a traumatic hematuria, which compelled me to stop the balsam and adopt vigorous antiphlogistic measures. In the four others there was remarkable improvement from the beginning, a cessation of pain after forty-eight or seventy-two hours, and cure on the fifteenth or twentieth day of treatment.

The observations on blennorrhagia which I have made at the hospital have been collected by my interus, Messrs. Darcy and de Beauman, and recorded in an inaugural thesis, sustained some days since by one of my pupils, Dr. Luc Deval.

Mode of Employment.—Sir William O'Shanghnessy and Edward John Waring administered the Gurjun balsam in very small doses, ten to twenty drops a day. Dr. Henderson prescribed two to three teaspoonfuls. The dose which

appears to me to be sufficient is a teaspoonful (4 grammes) daily. I have rarely exceeded one and one-half teaspoonful (6 grammes). Larger doses produce gastro-intestinal intolerance.

Gurjun balsam is not solidified by magnesia like copaiva. The pure balsam, put up in gelatine or gluten capsules, has been less easily tolerated than the following emulsion:

R.—Gurjun balsam,	Si	(4 grammes.)
Gum,	Si	(4 “)
Syrup (simple or of cachon,	Siij	(12 “)
Infusion of	3i3iij	(40 “)

Make an emulsion.

This mixture should be taken in two doses, one-half before breakfast, the other portion before dinner, *just before the meal*.

Having observed that the patients to whom I permitted the use of wine tolerated the Gurjun balsam well, experiencing neither nausea nor pains in the stomach, and recovering as quickly as the others, I prescribe a liquor glass of Malaga wine, or of Bagnols, to be taken immediately after the medicine. If these wines cannot be had, a quarter of a glass of red wine answers just as well; and further, I allow the regular wine ration during the meal.

Let the Gurjun balsam be taken immediately before eating, and facilitate its digestion by a little wine. Such is my experience on the necessary conditions to cause it to be easily tolerated.

A mode of administration not so good, and the employment of too strong doses, are probably the reasons which have prevented this excellent anti-blennorrhagic from becoming popular in England, as it ought to be, after the researches of the distinguished physicians who have praised it.

Even given alone, without alcohol, the Gurjun balsam is better borne than copaiba. It produces in the stomach a sensation of warmth; sometimes a little nausea, and vomiting is very exceptional. It produces one, rarely two semiconsistent alvine evacuations within two hours after the meal, but in doses larger than one and a half teaspoonfuls (6 grammes) it may cause colics and diarrhœa.

In none of my patients did it give rise to an erythematopapulous eruption such as is sometimes occasioned by copaiba. On the contrary, a patient recently under my charge, affected with the roseola of copaiba, was quickly cured of his blennorrhœa without the eruption reappearing. I do not think that Dr. Maurice or Dr. Mallery, who, since I commenced this investigation have prescribed the Gurjun balsam in some cases of blennorrhagia, have observed any eruptions produced by this medicine. Dr. Montgomery, quoted by Erasmus Wilson, is, to my knowledge, the only one who has observed a case of erythema analogous to that which may follow the use of copaiba.

The taste of Gurjun balsam is less disagreeable than that of copaiba or cubebs, and it communicates to the breath and the urin an odor more delicate than those substances.

The urine has a feeble balsamique odor, not disagreeable, which is quickly dissipated. One part of the oleoresin is eliminated by the urine as has been analytically demonstrated by Mr. Monin, pharmacun to my department.

Among the salts contained in the urine are some which present the characters of alkaline copaibates, but their acids have not been well determined. They are formed by the resinous acids of the Gurjun, combined with the alkaline bases of the urine.

After having experimented with the Gurjun balsam in the treatment of urethritis, I determined to employ it as a topical application in other blennorrhagic affections. In the form of a liniment it rapidly arrested the inflammation and stopped the discharge in two cases of balanitis and three cases of vaginitis.

The cases of vaginitis were cured in six or eight days; they were treated by first injecting with warm water and then applying, by means of a speculum, a tampon of cotton, wet with the liniment, a second tampon of dry cotton, attached to the first by a thread, sewed to maintain it in place, and this dressing has not been made oftener than once a day. The first application causes a

little smarting, the second produces less heat, and the following days in proportion as the cure progresses the sensation of warmth occasioned by the liniment diminishes.

After the first dressing the discharge was modified and by the third or fourth day, it was nearly dried up.

The liniment is composed of equal parts of Gurjun balsam and lime water. These proportions, already given by Dr. Dougall and by Dr. Erasmus Wilson, are the only ones which will produce a good emulsion.

To those more competent than myself, I leave the pharmaceutical study of Gurjun balsam. It seems to have been already pushed very far by the works of Charles Low (in *Pharmaceutical Journal and Transactions*, 1854, p. 65,) of Daniel Hanburg, 1856, of Vry, of Rotterdam, 1857, of Guibourt, of Fluckiger, 1866, of Huseman, of Planchon. This substance is mentioned in all the new treatises on *materia medica*, or pharmacology.

In all it is said that the extreme cheapness of that oleo-resin explains why it is often employed to adulterate balsam copaiba.

In India, the production of Gurjun balsam, or wood oil, is so considerable, and its value so little, that it is employed to paint the wood work of houses and vessels.

It is obtained by incising the bark of large trees of the family of the dipterocarpiæ. These trees, remarkable for the beauty of form and for their height, which is often seventy yards, grow in the islands of the Indian Archipelago, and in the countries east of Bengal. Roxburgh says that a single tree of the "*dipterocarpus turbinatus*" can furnish in one season a crop of as much as forty gallons of wood oil.

Selections.

PREVENTIVE TREATMENT OF YELLOW FEVER IN HAVANA. Leaving for the moment the great questions of quarantine and disinfection, let us speak of several indications or advices for people, who come from countries, where black vomit or yellow fever does not exist epidemically. We say so, because we have often heard people from New Orleans saying: "We are not afraid of yellow fever in Havana, it exists sometimes in our country, in consequence we are not liable to have it." This is a fatal mistake that has cost many lives. There is no doubt that the inhabitants of those places, or others similar are less subject to yellow fever, but between this and a total immunity there is a great distance. We will say that every person of any class, age, or profession who comes to Havana is liable to contract yellow fever, and with the less security, as their nationalities are more distant from the regions limited by the Mexican Gulf. We want to destroy a fatal prejudice, that has been the cause of many victims, on account of the neglect, with which several fevers in women and children are looked upon, believing that they cannot take the black vomit.

The first thing that a foreigner has to do, immediately after landing, is to locate himself in one of the healthiest places of the city; to dress, and modify his ordinary habits of eating and drinking, according to the usages of the country: to stay in the house during the hottest hours of the day, that is between 11 A. M. and 3 P. M.; to be moderate in both physical and intellectual works; to take every once in a while saline purgatives, and luke warm baths; not to sleep with windows open during the night; to avoid any kind of excess, as nervous excitement is very prejudicial, and favorable to the development of the disease. Indigestions are particularly terrible.

They can drink lemonades and orangeades without the abuse of ice, which is highly irritant when used in excess. They must also be careful about taking cool refrigerating drinks before the digestion be effected.

Good and well ripened fruits are not dangerous, no matter what the vulgus says against them.

The use of cotton undershirts is very healthy, by keeping away that disagreeable chilly sensation caused by the contact of linen shirts damped by excessive perspiration. If in spite of these precautionary measures, he feels some symptoms of disease, he must not lose time, but send immediately after a physician, because yellow fever is one of the diseases, that requires the greatest activity in its treatment. Six or seven hours lost are sufficient to compromise the cure, or at least to bring accidents that could have been avoided. It is a disease that we can cut off in the commencement. Let people take note of this.

The physician, who is called thirty or forty hours after the invasion of the fever is perplexed, as congestive disorders already exist, and albumen is abundant in the urine, and he is no longer able to avoid stomachal and intestinal hæmorrhages, which a proper treatment commenced several hours before could have prevented.

At the hour we are writing this paper, a child five years and a half old is dying, who fell sick on the 21st. Its parents, convinced that children are exempt from yellow fever, waited to call us until the 23d, forty-eight hours afterwards. At our fourth visit, intestinal hæmorrhages made their appearance, and the child died on the eighth day of the disease with tetanic symptoms. Seeing such a vital resistance in this patient, it is more than probable, that he could have recovered, had the medical treatment been initiated in the first hour of the disease.

The indications, that we have just suggested, are only hygienical; we believe, that the public has the right to claim from us something more. We have thought of it, and we are going to propose a preparation composed of quinine and extract of *nux vomica*.

We believe, that in times of epidemic, it would be good to take every morning according to age, or sex, from ten to twenty-five centigrammes of either sulphate or bromhydrate of quinine with two or three centigrammes of *nux vomica*, either in pills, or dissolved in a little water or coffee. We cannot assure that this prescription really pre-

vents yellow fever, but we would not be surprised, that if for some people it might be a preventative ; for others who fall sick in spite of its use, might be a means of moderating the violence of the symptoms, and converting into a fever of acclimation, cases that otherwise would have been genuine yellow fever. We are often consulted by the new immigrants to this Island whether blood letting from the arm be a good preventive against the fever. We answer that in plethoric persons we think it useful, and in proof of it we will relate the following fact :

Thirty years ago there was in Santiago de Cuba, a physician who had charge during many years of the barrack troops. He used to send acclimated soldiers to a very fresh and elevated place, called El Morro, situated at the entrance of the harbor. He bled them from the arm, once or twice ; he administered a couple of saline purgatives to each soldier, and sent them back to the city fifteen or twenty days afterwards. An old friend and confrere of ours told us that black vomit was in those times almost unknown among the troops.

Here ends our work. It is an exact epilogue of what we have seen, exempt from all influence of school, and without any preconceived idea. By giving this preventive treatment based upon remarkable success, we have been guided by good faith, and by the desire of being useful ; we are always ready to acknowledge our errors, and to accept anything better, that the field of scientific truth may afford us.

Before leaving our readers, and colleagues, we want to call the special attention of the profession to the following points :

1st. To determinate the precise moment, when albumen appears in the urine. 2d. To try the influence of oxygen mixed with the air, that the patient breathes. 4th. To examine the condition of the blood by means of polarization, according to the late magnificent works of Fumouge. 5th. To investigate with great care the internal lesions through pathological anatomy : it is a void in the history of yellow fever, that could well be filled by the intelligent professors, that are at the head of the civil and military

hospitals of this city.—*New Orleans Medical and Surgical Journal.*

A CASE OF TRAUMATIC TETANUS TREATED BY PHYSOSTIGMA.
Charles G., æt. 7, thin in flesh, of a nervous temperament. September 17, 1877, while playing, he climbed on a fence, and jumping off, his left foot struck a broken bottle that was concealed in the grass. The glass cut through the fascia, muscles and external plantar artery, making a wound about one inch long. This was dressed by the family, hemorrhage being arrested by binding cobweb on the foot.

On September 21st I first saw the boy. He was sitting propped up in bed, complaining of severe pain in the foot, which was much swollen. The toes were almost black from the effects of the tight bandage, which had not been removed since it was dressed. The entire leg was red and swollen. He complained of pain running up the inside of the leg. I at once removed the bandage, and as the hemorrhage was very free, I gave chloroform, and ligated the posterior tibial artery, behind the internal malleolus. As this only partly controlled the hemorrhage, I ligated the dorsalis pedis, which arrested it entirely. I then examined the wound in the foot, and found the skin, fascia and muscles in a gangrenous state, and sloughing for a space of two inches in circumference. The foot was ordered to be poulticed with slippery elm, and an opiate was administered; I also gave him two grains citrate of quinine and iron every four hours.

Sept. 22. Rested well through the entire night; foot swollen very badly; the swelling in the leg subsiding and not painful; continued the poultice, changing every four hours, and washed the sloughing wound with carbolic acid solution one part to twenty. The boy remained much the same until the 26th, when the skin and the muscles of the foot that were gangrenous sloughed off, leaving a granulating surface two by three inches in extent. I continued the citrate of quinia and iron, but he did not require the opiate. He ate well until the last twenty-four hours, since when he has eaten nothing; ordered beef essence and

dressed his foot with vaseline, and gave him a dose of castor oil.

27th, 6 A. M. He was very restless all night, and continually turned over from side to side; slept but little; opens his mouth with difficulty and swallows poorly; is unable to move without great pain; pulse 90 and weak; bowels freely opened by oil taken last night; perspires freely; expression of face anxious; complains of spasmodic pain in the back, epigastrium, groins and calves. Touching his hands or any part of the body produces a short clonic spasm. He was ordered to take ten grains of bromide of potassium, and five grains of chloral hydrate every three hours; beef essence, one egg and one ounce of brandy every four hours.

1 P. M. Resting well; has no pain; touching hand or body does not cause spasms, but the muscles are more rigid. Continued the same treatment.

8 P. M. He has had within the last hour three severe spasms, lasting half a minute, each causing opisthotonos. The perspiration very profuse; the eyes fixed; the pupils widely dilated; respirations very distressing; muscles of neck and jaw rigid, producing in the face the characteristic ghastly grin; pulse 100 and weak; is quite sensible, and his sufferings consequently severe. I now ordered tinct. cannabis indicæ, twelve drops (to be increased two drops at each dose) to be given with the bromide and chloral until he became quiet.

28th, 6 A. M. He is much worse in every respect. The spasms are more severe and last longer; has had twenty-three since last note, some lasting fully one minute; the wound on the foot is dry, there not being a drop of pus; pulse 105 and very weak; respiration 32 and difficult; perspiration in drops over the entire body; pupils widely dilated and do not respond to light.

The bromide and chloral combined with the tinct. cannabis indicæ, having done no apparent good, were discontinued, but the beef essence, egg and brandy were given as before, although he had great difficulty in swallowing. I now prescribed physostigma in one-eighth grain doses every two hours. He took the first dose at 6:30 A. M. At

11 A. M., when I saw him, the pupils were of normal size, the spasms not so hard, and the pulse 99. Continued the physostigma. At 3 P. M., has had but one spasm since 12 o'clock, that being a very severe one; swallows better, and does not perspire so freely. Continued the physostigma, beef essence, egg and brandy. 9:30 P. M. The pupils are about the size of pin heads; has had two very light spasms, lasting about ten seconds each; to take the physostigma every three hours.

29th, 7 A. M. Slept for three hours last night, then woke up in a light spasm at 1 A. M., since which he has had several short naps, but no spasms; can swallow much better; pupils size of small pin heads; muscles rigid; respirations 24 and not so difficult. Continued beef essence, egg and brandy; to take physostigma every three and one-half hours. 1 P. M. Slept for two hours, and woke up in light spasm; pupils not so small as last noted; he is perspiring more freely, and is more nervous. Ordered physostigma to be given every three hours. 9 P. M. Has had three naps since last note, awoke each time more nervous, but had no more spasms; muscles very rigid, pupils contracted; respirations 24 and somewhat difficult; expresses himself as feeling much better.

30th, 7 A. M. Had no spasm last night, and from this date on he had no spasms. I continued the physostigma at various intervals, as he appeared nervous, until Oct. 14. He made a slow and tedious convalescence, the rigidity of the muscles lasting until the last of October, so much that it prevented him from walking. The treatment from this date consisted of tonics and stimulants, with nutritious food. Complete recovery ensued.

DYSMENORRHOEA—ITS TREATMENT.—The practitioner often meets with cases of this disease of a distressing and troublesome type. Numerous remedies and modes of treatment have been proposed, but these often prove inefficient. As this painful and injurious condition may result from different causes, no single plan of treatment will be applicable to every case.

A successful treatment of several obstinate cases

prompts us to give the profession the benefit of our plan, which we hope may be deemed worthy of a trial. Believing that constriction or occlusion of the cervix—the result of sub-acute inflammation or displacement—was the cause of the trouble, we have pursued the following method in all cases in which it was not contra-indicated.

About one week before the time for the menstrual flow to commence, we introduce into the cervix a very small tent made from the bark of elm (*ulmus Americanus*). We prefer this material because it is safe and cleanly, and never causes inflammation, as the sponge sometimes does. In most of these cases, we have found it very difficult to pass a small tent, moistened more than half an inch into the cervix, on a first trial, and those used at first are only about one inch in length. After the tent is introduced, a plug of cotton, to which a cord is attached, is passed through the speculum to keep the tent *in situ*. The plug is saturated with carbolic acid and olive oil or glycerin, parts 1 to 7. By means of the cords attached to the tent and plug, the patient removes them the next morning, and uses an anema of warm water and castile soap. In an obstinate case, we use a tent every day on which the flow should commence, unless it is established sooner, substituting longer and stronger ones as the cervical cavity becomes dilated. So much for the mechanical part of our treatment.

According to the indications of the case, we use one of the following remedies internally:

Concentrated tincture of helonias (false unicorn) Keith & Co's.

Fluid extract of ergot (Squibb's).

Tincture of gelsemium.

Syrup of the iodide of iron.

The patient commences taking one of the above at least three weeks before the regular date of her flow, and continues it until this is fully established. She then suspends it for a week or ten days, after which she resumes it. Sometimes we get better results from using two of the above-named remedies alternately, as the helonias and the iron, or the ergot and the iron. A gentle current of elec-

tricity is passed through the uterus once a day, for two or three days, before the period. The results of this plan of treatment may be stated briefly, as follows:

During the first period after this treatment, the patient suffers less pain, and the flow is somewhat increased in quantity. If it be persevered in, there will be improvement every month, and after three or four months the cure will most likely be complete.

In all cases of dysmenorrhœa resulting from the causes we have herein set forth, we have found this plan a practical and successful one. The tent used is bland and un-irritating, owing to the amount of mucilage it contains, and, by means of the plug, a gentle pressure is kept up against it. As soon as the tent, on removal, is found to be freely stained with blood, we cease to use it until a week before the next period.

This treatment, it will be perceived, is especially adapted to that class of cases in which some eminent practitioners have recommended and practiced incision of the cervix. We vastly prefer the method here described to incision.—*Medical Monthly.*

CASE OF OVARIOTOMY.—Miss K. B., aged twenty years, was seen by me in consultation with Dr. C. C. Holmes, of Milton, December 11, 1877. At that time her umbilical girth was thirty-three and a half inches, temperature 100.6° Fh., pulse 132, of fair strength, and her general condition encouraging for operation. Dyspnœa and general discomfort had induced Dr. Holmes to tap the cyst on December 5th, when twenty pints of clear, yellow fluid were removed.

Her health first began to fail in March, nine months before I saw her. On March 19, 1878, twenty-eight pounds of brownish-colored fluid were removed by aspiration, and soon after this the patient decided to have the tumor removed. This was done at the Carney Hospital on March 30th, under carbolic acid spray. The incision was five inches long, and subsequently was somewhat enlarged; there was a slight amount of ascitic fluid; the adhesions were strong, quite vascular, and almost universal through-

out the anterior and lateral portions of the cyst wall, and to the diaphragm on the left side they were particularly intimate and difficult to separate. Many of the bands of adhesion were tied in two places with silk or cat-gut, and divided between the knots; others were cut through with saw-toothed scissors, and many were ruptured by manual force. A small laceration of the surface of the uterus, which bled freely, was sewed up with carbolized cat-gut. The pedicle was first compressed with Dawson's clamp, then tied in two halves with carbolized cat-gut, cut off, and dropped back. This method I have adopted in my last two successful cases, and am very well satisfied with the results. The cyst was extremely multilocular, and the inner cysts were broken down with considerable difficulty. The contents of one of them was shreddy-looking, (very likely this was the large cyst aspirated about two weeks before). The cavity of the abdomen was thoroughly sponged out, and the inner surface of the peritonæum was left red and shaggy-looking. Seven deep and three superficial carbolized silk sutures closed the wound. The patient rallied well from the operation. The pulse rose to 140 on the morning after the operation, and fell to 100 on the third day; the temperature rose gradually to 103.2° on the second day, and was normal on the fifth; the urine was passed voluntarily throughout the period of recovery; at first micturition was frequent (once an hour); flatus passed per anum on the third day; small doses of opiates and stimulants were required; the stitches were well removed on the seventh day, and the wound found to be healed throughout without suppuration. The bowels moved naturally on the eighth day; patient sat up on the fifteenth day, was out of doors on the eighteenth, and returned home, driving seven miles in a carriage, on the twenty-eighth day. The catamenia appeared in May, and have recurred regularly since. She is now (July 22, 1878) well and strong.—*Boston Medical and Surgical Journal*.

PERINEORRAPHY.—I regard the operation for restoration of the female perineum as a very important one, for

the reason that the opportunities for performing it are so numerous.

There is no operation that the gynæcologist is required to perform so frequently; and if he succeeds in doing what he attempts (restoring the perineum), the value of his services to the unfortunate female cannot be over-estimated.

My apology for reading a paper before so learned a body, on so common an operation, is, that on examination, I have met with so many cases operated on by myself and far more skillful surgeons, in which the condition of the patient was but little, if any, better than when she first applied to the surgeon for treatment. And it is because I have reason to be better satisfied with my results for the last few years, that I trespass upon your time to explain the way in which I do the operation now.

It would be out of place for me to take up your time with the causes of rupture of the perineum, but I wish just here to say that most of the cases that I have seen were the result of the use of the forceps, and most of them occurred at the first confinement; so that for years it has been my invariable rule to remove the instrument as soon as the child's head distends the perineum, in a first labor. By so doing a little time is lost, but the perineum is often saved.

In my judgment, far too little attention is paid to the treatment of the patient previous to the operation. In many of the cases the womb is in a condition of complete prolapse, and has been so for a long time. All the supports of the uterus are in an abnormal condition; the ligaments are stretched, the vagina is everted, the womb, from congestion, is too heavy. Now if, as is often the case, the operator returns the organ within the pelvis and closes the perineum, it will be but a very short time before the uterus will stretch the newly-formed tissue apart, and find its way outside the body again; but if, by the use of appropriate remedies, the uterus be relieved of the congestion and resulting hypertrophy, and if, by the use of a pessary supported externally, the organ be kept in position till the vagina recovers its tone and the ligaments are in a

condition to help hold the uterus up, the results of the operation will be very different; and if months are required to accomplish this, the time is not lost. It is my practice to continue to hold the womb up off the parts for some time after restoring the perineum, in order that the union may attain firmness sufficient to resist pressure from above, should there be any.

I think there is no operation the reports of which are so well calculated to mislead the young practitioner as this one. All, or nearly all, are reported as perfect successes, and honestly so, for the report is made just after the operation, when the external appearance of the parts is very much improved; the long, gaping opening is replaced by a well-closed vulva. Convinced of his success, the operator so reports it, when, if he had waited for a year, and then examined his patient, he would have found, in very many cases, that he had not restored the perineum at all, but had only united the skin for an inch or two, from which she had received little or no benefit, and had found herself, after a few months, as bad off as before the operation.

The union of the skin high up is a matter of very little importance compared with diminishing the capacity of the lower two inches of the vagina by a firm union, of a triangular shape; and, I believe, in a great majority of cases, that may be done, the patient having had the advantage of skillful treatment to put her in a proper condition, by operating in the following manner:

Let her be placed on her back upon a table, before a window, and when etherized, her legs are to be held in position by two assistants, who also, with the fingers of the free hand, stretch open the vulva. The operator sits before his patient, and, having removed the hair from the labia, introduces two fingers into the rectum, to put the parts upon the stretch, and, with the scissors curved on flat, he removes a thin layer of the mucous membrane, for a distance of two inches up the posterior wall of the vagina; then, dissecting from this line on either side, he denudes a triangular surface, which extends from the lower anterior edge for an inch and a half up the labia, and for two inches up the posterior wall of the vagina. Every

part of this surface must be denuded, and it is important it should be done evenly, and the thinner the lamina taken off the better.

The hemorrhage is always slight, and it is better not to use ice or to throw a stream of water upon the parts with a syringe, nor is it well to close the wound and depend upon the sutures to stop the bleeding. I am in the habit of waiting half an hour, till all oozing stops, and the denuded surfaces present a glazy appearance, before introducing the sutures, and it is upon the way in which *this* is done that everything depends.

Iron wire, plated with silver, is less likely to break than silver wire, and is preferable, for that reason.

The first suture is a very important one, as you depend upon it to control the action of the muscles: it is introduced by entering the point of the perineal needle an inch from, and half an inch below, the lower angle of the wound, passing it across the middle of the vivified surface, and out at a corresponding point on the opposite side. This suture passes over the rectum and under the denuded surface, and is not seen in the vagina. The eye of the needle, which is at the point, is now threaded, and as the needle is withdrawn the suture is introduced. The second suture enters from half to three-fourths of an inch above, and is passed in the same way. All the other sutures are seen in the vagina, just at the edge of the vivified surface.

Now, if you pass both ends of the suture through a perforated shot, run it down and clamp it, you will be very much pleased with the appearance of the wound after it is closed in this way—but what will you do? You will pucker the whole mass up, instead of bringing the surfaces evenly together. You will be obliged to draw the wire so tightly that you will interfere with the circulation by this process of strangulation; and once the shot is clamped in this way, it cannot be removed; and as the part swells, as of course it will, if the wire does not cut through the skin (as it often does), it is because the mucous membrane within the vagina offers less resistance; and as there can be no union outside the sutures, all this is lost.

To obviate these difficulties, you are directed by some

operators to clamp a shot on each end of the suture ; but when I did this I found that the shot were pulled through the skin and the edges of the wound separated. So I made some little disks of lead, about the size of a silver three cent piece, punched a hole in them and ran them down, then ran the shot down and clamped it. This I found to answer the purpose perfectly, and I do away with the shot now by using disks of lead, made for me by Mr. Gemrig, with a nipple on them to be clamped, to hold them in place.

In this way you close the posterior edges of the wound, and the anterior edges are now brought together by taking the end of a suture in each hand, crossing them and twisting them twice around ; in this way the parts are brought perfectly together.

I do not cut off the ends of the wires, but leaving them about three inches long, gather them in a bundle and wrap them with a piece of muslin, and as you find the swelling to increase, untwist the wires a little and give the parts more room, and after a few days, as the swelling decreases, twist them tighter from day to day, if they require it. In this way the parts are kept evenly together, and as the surgeon watches his bandages and prevents strangulation by giving more room when more is required, so you from time to time adjust your dressings, in accordance with the condition of the parts.

The bowels are kept closed with opium ; the water drawn ; the knees tied together. The sutures may be removed the seventh or eighth day. The bowels may be moved with care on the ninth or tenth day, and I think well of locking them up again for a week afterward. Of course all I have said here relates to ruptured perineum when the parts have cicatrized ; in recent cases I am in favor of immediate operation, and I put the stitches in the same way.

My results since I have operated in this way have been very satisfactory, but they have not all been perfect successes, and from the many cases that I have met with at the clinic, and in my private practice, that have been operated upon by others, I am sure that I make no mis-

take when I say again, that those operators who never fail to restore the perineum would make a different report if they waited for a year, and then examined their patients.—*Medical and Surgical Reporter*.

THE USE OF COMMON WARTS OF THE HAND IN SKIN-GRAFTING.—As common warts of the skin are collections of vascular papillæ, admitting of easy separation without injury to their excessively thick layer of well-nourished epidermis, the idea was conceived that, by their use for the purpose of skin-grafting, better and more rapid results would be obtained than when the ordinary skin of less vitality is used. As proof of the theory, the following case is cited, where there had complete destruction of all the skin on the dorsum of the foot, involving to a great extent the deep cellular tissue, and where for several weeks no healing advanced until grafts of freshly removed warts from the patient's hand immediately started little islands of tissue, which rapidly increased until they coalesced and met the margins of the border skin, thereby completely covering the foot by firm, protecting integument.

Samuel Root, aged twenty years, by occupation an iron moulder, while at work had a stream of melted iron run over his foot and through an opening in the front of his boot—a portion being moulded between a thick sock, which was burned to a black powder, and the remains of his boot. In about a minute his foot was placed in a pail of cold water, and as the boot and sock were hastily removed, a large mass of adherent skin was torn off from the crown of his foot. Extensive gangrene and sloughing of tissue followed, but treatment, in four weeks, left a healthy-looking granulating wound. Although strapping, hermetically sealing, removal of pressure, retention of foot while in bed in an elevated position, with applications of the usual healing balsams, and submersion in hot water were resorted to, yet, for the next five weeks, not the slightest advance towards healing occurred; the skin at the margin of the wound being exceedingly thin and shiny, while the wound itself was a mass of exuberant granulating tissue. For a number of days epithelial scrapings were dusted on

the wound without any apparent effect. At the end of nine weeks I removed two large warts from his hand by transverse incisions through their proximal parts, carefully wiped off all blood and tore each wart into quarters, in the direction of its papillæ, and these eight portions of warts were planted about equal distances from each other through little cuts, and left deposited about a line beneath the surface, all being completely covered at the end of the operation by the overlapping granulating tissue. The entire wound was now hermetically sealed by a covering of mild balsam of Peru ointment spread on soft lint, retained in position by adhesive straps, which were not at any time permitted to come in direct contact with the sore. At the end of forty-eight hours he walked on crutches over half a mile to my office. The dressings, in consequence of the purulent secretions, were easily removed. Each of the little grafts had received nourishment, and all were alive; nor did any of them slough, as we nearly always see before the white zone shows itself in the ordinary skin grafting, but without any degeneration continued to grow, forming new skin, until they joined together, and at the end of three weeks from the time of grafting, and twelve weeks from the time of the original burn, the foot was entirely covered by skin and firm cicatricial tissue. The cicatrix then, on November 17, 1874, measured three by four and a half inches. Three years afterward, on examination, it was nearly as large, but the cure remained complete.

Warts of the hand can be used with better results than small pieces of normal skin, in skin-grafting, in consequence of being easily separated uninjured into numerous cylindrical rods of great vascularity and containing a large proportion of hypertrophied epithelium, which, when planted in healthy granulating tissue, readily adapt themselves to the new soil, receiving direct nourishment and quickly growing as starting-points for a new and smooth epithelial covering.—*The Medical Record*.

TREATMENT OF ACCIDENTAL HEMORRHAGE.—The brief time allowed me to prepare my paper has prevented my

making extensive investigations into the literature of the past regarding the ancient treatment of accidental hemorrhage; and, your professional reading has made you familiar with much which I gladly omit. I shall seek the virtue of brevity and draw mainly upon my own experience in the treatment of such accidents.

I suppose it is expected that members who offer papers here, particularly those whose experience covers a score or more of years, will rehearse the special treatment by which they have succeeded in difficult and exceptional cases. We owe this to the young, aspiring company which has joined us in the last few years. We should tell of our difficulties and the means by which we surmounted them, when all our previous knowledge, and all the wisdom of the books failed to aid us.

I shall confine my remarks to hemorrhagic misfortunes which precede, accompany, or follow physiological or pathological changes, and first of all refer to epistaxis.

Nose-bleed is, perhaps, the most common of all hemorrhages, and often proceeds from trifling causes, especially in those of hemorrhagic diathesis. Not unfrequently, it is positively alarming from its copiousness and the failure of attempts at suppression. Occurring in the course of certain phlegmasiæ, as for instance, typhoid fever, it may decide the case adversely to the patient. It is to a certain extent, perhaps, salutary in some cases, but excessive losses are always detrimental.

The means usually recommended and employed are cold, styptics, as alum, salts of iron, lead copper; position of head, packing of the nostrils with cotton or other fibrous material, with or without styptic solutions; plugging of the posterior nares by similar materials drawn into place by a flexible catheter or the instrument of Bellocq; external pressure in divers irregular ways; the elevation of hands above the head; and, finally by astringents addressed to the general circulation. In spite of these varied means, death not unfrequently follows epistaxis, either by sudden collapse or the influence exerted upon the course of existing disease.

The means I have found singly and combined to be an

effectual remedy for epistaxis is pressure external or internal. The experience of more than twenty years has convinced me that the ordinary forms of styptic treatment—or packing as ordinarily practiced—are wholly unreliable in cases at all severe, or appearing in the course of disease.

In June, 1863, I had charge of a case of typhoid fever occurring in a phthisical young gentleman residing on Seneca street, near Michigan. The disease was protracted and the patient became exceedingly feeble from diarrhœa and loss of digestive power. Early one morning, I was called to find him bleeding from the nose to a most alarming extent. I used styptics, plugged the anterior nares. All these proceedings failed to do more than check—they did not stop the hemorrhage. In certain positions the loss, drop by drop, passed outward, in others inward. General treatment had no perceptible effect, and after 36 hours perseverance I found my patient failing. In this dilemma I removed all the packing from the nares, when the slow drop, drop, passed outward. At last by pressure applied to the angular branch of the external carotid, I had the satisfaction of finding the hemorrhage fully controlled. This I accomplished by application of the thumb and finger at the lower border of the ossa nasi externally. Temporary removal of pressure was followed by hemorrhage, and to secure continuous pressure, I shaped the jaws of a spring clothes pin to fit the nose, removing a portion of the wire spring to lessen pressure. This simple tourniquet remained in place and the patient recovered. Satisfied, by this experience, of the doubtful utility of packing in the usual way, I felt quite safe until a case of nasal hemorrhage occurred in a patient about 14 years old, residing on Scott street, near Washington. The lad had suffered previously, and his mother did not feel alarmed until he fainted from the loss of blood. Before my arrival he slightly rallied only to sink exhausted by fresh bleeding. He was pulseless, sightless, breathless, and to all appearance dead. I forced some whiskey down his throat and practiced artificial respiration. As he gasped, I passed a sponge tent, intended for other use, into the right nostril

from which I supposed the blood had flowed. It soon expanded and filled the nostril posteriorly and anteriorly, completely controlling the hemorrhage. I left the tent in position forty-eight hours; on removal, there was no loss of blood, and I had the pleasure of being assured years afterwards that the treatment had been radically successful. Since that date, August 1863, I have used the sponge tent in all alarming cases of hemorrhage of the nose. My cases number 27, comprising those occurring in typhoid, diphtheria, scarlatina, traumatic injuries and causes not capable of tabulation. I think I may fairly claim originality in this proceeding.

Another form of accidental hemorrhage is that known as alveolar, following the extraction of teeth. Instances of death are quite frequent from this cause. I recall a case in which I used a treatment somewhat novel. The patient was a soldier, discharged for sickness, and on his way to friends in the West. He had suffered from acute hepatitis and had excessive pytalism, in which condition a tooth was extracted by a dentist. When seen by me, he had bled apparently five or six pints, and the blood was passing in a fine needle-like stream from the inferior maxillary. Every effort had been made to arrest it, apparently, by styptics, etc., and still the hemorrhage went on. Finding plugging the cavity of no avail, I procured a large cork and hollowed it so as to clasp the lower edge of the inferior maxillary, just back of the dental foramen, to compress the inferior dental. Pressure was then made by a band carried over the head, a small cork tapered to pass well down upon the bottom of the cavity, the jaws closed so as to make pressure upon it and the band tightened to make pressure upon the dental artery externally. Hemorrhage ceased and did not return. I recommend plugging the cavity left by the removed tooth, with a slender cork, which has first been conveniently spitted upon an ordinary dining fork. This is very convenient for keeping the cork in place, and the patient is advised to keep the jaws firmly compressed.

Hemoptysis is another form of hemorrhage which is frequently exceedingly difficult to control, and for which

numberless remedies have been proposed. It has been my lot to attend a very large number of such cases, and to watch the effect of many remedies.

For ten years past I have used the following formula:

R.—Tr. Digitalis,	3is.
Ol. terebinth,	3iij.
Ol. menth. pip.	gtt-x.
Acidi sulph. ar.	3iij.
Alcoholis,	q. s.
Ad fac.	3ij.

M.

Dose, 40 to 60 drops well mixed with sugar, to which one or more tablespoonfuls of water may be added, every two, three or four hours, according to urgency of the hemorrhage. I know of no combination that at all approaches it in efficiency. Acids—tannic, gallic, sulphuric—turpentine, ergot, lead acetate, with or without opium, are all greatly inferior in their effects.

In hematemesis, tr. ferri chloridi has proved the most efficient remedy. In hematuria, tr. benzoin co. and tannic acid. I have never attributed any special utility to ergot as a hæmostatic, except in certain forms of uterine hemorrhage. In the form of ergotine it may be used hypodermically with advantage, but the tincture and extract are very unreliable. It is very often rejected by the stomach, particularly if combined with opium or sulphuric acid.

Umbilical hemorrhage, or bleeding from the divided umbilical cord, is a very frequent misfortune, and occurs when apparently every precaution has been taken by careful ligation. Many infants die from this cause, and many are rescued by the merest accident. I have found the plan of enclosing a small segment of the cord in a second loop of the ligature, a perfect safeguard. It compels the formation of a clot of blood between the two points of ligation, and if carefully done may always be trusted.

It is a trifle difficult to draw the line between accidental and unavoidable uterine hemorrhage. The position of the placenta, when centrally implanted, is itself an accident, and hemorrhage in such circumstances should be classed as accidental.

No more important subject could occupy the hour than the consideration of uterine hemorrhage. To its observation the best minds of our profession have given earnest and continuous thought. Numerous are the plans, remedies and devices for restraining these hemorrhages, and fortunately now-a-days in a very large number of cases some one of them succeeds. Hot water injected into the uterus has been highly praised in *post partem* hemorrhage from whatever cause. I think it has sound philosophy in its favor. The practice of introduction of astringents, notably sol. ferri, per-sulph. by injection, has high professional sanction, and yet seems hardly devoid of danger. We need further experience before deciding affirmatively in its favor.

June 28th, 1871, I was summoned in haste to attend my patient, Mrs. D., residing on Carroll street, Chicago. On my arrival, I found Dr. A. H. Briggs had also been called, and he kindly consented to remain and assist me in the conduct of the case. Examination showed a foot presentation, but I was struck by the extraordinary cedema of the patient, particularly of the lower extremities. The feet were enormous transparent sacks of water, and the whole body anasarcaous. In an hour, unaided by special art, a child was born, and it was then evident that there was twin pregnancy. The hemorrhage was only ordinary until the birth of the second child, when it became suddenly profuse, and the weak anæmic patient was rapidly prostrated. On attempting to deliver the placenta, I found true hour-glass contraction, the double placenta tightly compressed in the upper segment, and the hemorrhage absolutely appalling. While I proceeded to dilate the constriction, Dr. Briggs, at my request, hastened to the nearest drug store and obtained two sponges of the size of an ordinary lemon, and a bottle of sol. ferri per sulph. On his return the patient was unconscious and pulseless, and the hemorrhage continued, though the placenta was removed. Hastily attaching a piece of tape to a sponge, I saturated it with diluted sol. ferri per sulph. and carried it to the fundus of the womb. The hemorrhage ceased instantly; the patient, to all appearance dead, slowly

rallied and made a good recovery. Four hours later I withdrew the sponge—a hard, stony mass—and the womb contracted well. I can find no record of similar proceeding, but it seems to me to be preferable to the mere injection of astringents. The sol. ferri per sulph. coagulated the blood, and the sponge formed a tampon upon which the womb could and did contract.

In the treatment of abortions and premature deliveries, the principal difficulty lies in the safe management of hemorrhages. I am not a convert to the specific effect of ergot in such cases. I believe that in these, as in most hemorrhages, we need pressure upon the bleeding vessels. Mere stypic effects are not to be trusted.

The tampon is a good illustration of our philosophy in this matter, but the tampon will often partially or wholly fail. There is danger in forcing loose fibrous or other material into the cavity of the womb, not simply by the force used, but also from fragments retained, producing uterine irritation, leucorrhœal discharges, etc. In such cases, when unable to reach and remove the placental substance and membranes, I am accustomed to pass a sponge tent by the speculum, and then tampon in the ordinary way upon it. Generally, I find, upon withdrawing the tampon, the dilated sponge tent follows, dragging with it the rudimentary fragment of the placenta. The hemorrhage is also very much less than when the ordinary tampon only is used.

In accidental hemorrhage from supposed partial detachment of the placenta at or near term, I am inclined to favor the induction of labor and of artificial delivery as soon as dilation of the cervix will permit. The well known diagnostic distinction between it and placenta prævia should be borne in mind, viz: in partial non-cervical detachment, hemorrhage is most marked between pains; in placenta prævia at time of pain. The diagnosis is thus made easy. So soon as forceps can be applied, the delivery should be accomplished. Delays are infinitely dangerous in such cases. I have usually ruptured the membranes early, so as to obtain the aid of the foetus as a tampon, and I usually also apply a broad bandage firmly

over the abdomen, interposing a liberal layer of cotton batting to equalize pressure. I think if we have any reasonable theory in such cases, it must be that of compression; the grand fundamental idea in all cases where applicable. Turning may be useful, but its risk to the mother should be considered.

In the treatment of certain forms of hemorrhage, particularly such as occur at or near the so-called "change of life," I place great confidence in carbolyzed sponge tents introduced within the cavity of the uterus. I have never seen ill effects, and have frequently controlled, by a single tent, hemorrhages which had resisted the ordinary tampon and various astringents. I introduce the tent through the speculum, well up to the fundus, and tampon over it in the usual way. A recent writer reports that he frequently removes small polypi by this means.

Accidental hemorrhage may also occur from ulceration of the os uteri or cervical canal. These I treat by applications of cupri sulph. in form of pencils, touching not only the bleeding ulcers, but also the cervical canal. Sulph. copper is also very useful in simple abrasion or congestion of the cervix.

Polypi are removable by traction, evulsion and the ligature. A case occurring in my own practice illustrates the necessity of careful scrutiny into the cause of accidental hemorrhage.

On making an obstetrical engagement I was informed that the lady had lost her child at a previous labor and endangered her own life by hemorrhage, and special care was desired from this misfortune. Summoned to attendance on the labor, I found that dangerous hemorrhage had already occurred. The child was soon born, exceedingly exsanguine, and lived but twelve hours. There was good contraction of the womb, and I used all required care, remaining four hours with the patient, with no recurrence of hemorrhage. An hour later, I was called to find my patient almost pulseless from flooding. Examination showed the os open and dilatable, and I passed, with little effort, my fingers within it, when they came in contact with a pendulous body which I recognized as a polypus.

It was the size of a small peach, and fortunately, had a slender pedicle. I removed it by torsion, without difficulty. There was no further hemorrhage, and two confinements since have been without unusual hemorrhage, and safe to both mother and children.

The subject of accidental hemorrhage is but slightly considered in the remarks I have made, but longer trespass upon your indulgence would be tedious, and special points can be brought up by discussion. I have offered personal experience, a course I commend particularly to all whose experience has been considerable, and as the only one tending to the accumulation of medical facts. There is value in carefully prepared statistics and generalizations, but infinitely more in the presentation of special cases and carefully observed phenomena.

It is not the splendid operation only, but the modest success that practically aids in our daily work.

This paper was prepared for our last meeting, but I was unavoidably absent. Since that date I have treated a case of epistaxis in a lad of ten years, a son of Mr. Flynn, corner Scott and Red Jacket streets. By repeated bleedings the boy was exceedingly exsanguine. A tent was inserted in the right nostril and left for nearly three days; no hemorrhage. On withdrawal a few drops of blood passed, but the lad has had no return in the last three weeks.

Post partem hemorrhage, though occasionally accidental, is usually avoidable. Position, and more particularly, *deference* to nature's mode of placental expulsion would largely diminish the dangers encountered. The reprehensible practice of delivering the placenta by traction upon the cord cannot be too severely condemned. I have for years practiced what is known as Crede's method, and always bring the placenta into the vagina by external manipulation; traction upon the cord is then useful and justifiable. The rude separation of the placenta from the uncontracted uterine wall is one of the most frequent causes of undue and dangerous flooding.

I am compelled to close my remarks without reference to many forms of hemorrhage, properly called accidental, but as far as I know my practice accords with that of

others, it is somewhat foreign to my purpose to review them. I have aimed to offer you my personal experience, which is in some respects unique. The use of sponge tents for epistaxis, dating back no less than eighteen years, is original with myself so far as I can learn. Two English physicians in '74, I think, alluded to their use; but no work, unless it be very recent, makes any allusion to them for this purpose. I can recommend them as truly specific in such cases. Their size should vary as also their length. They should always pass well to the posterior nares, and be left from forty-eight to seventy-two hours in position; contrary to supposition the withdrawal is quite painless. The error, if any, will be in using tents of too great diameter, for children two lines is ample. The important consideration is their length. This should be two and one-half to three inches for an adult, and two inches for a child from six to ten years. The tent should be slightly curved and passed well back by the middle meatus of the nostril from which the blood is supposed to flow. No part of the tent should project anteriorly from the nostril, and the usual traction loop should be shortened so as to be out of way. This will lessen danger of interference by the patient. The removal should be accomplished by rotation and traction. I have never noticed displacement of the Vomer or injury to the turbinated bones; a slight loss of blood is to be expected, but it soon ceases.

With thanks for your kind attention I invite your friendly criticism.

Dr. W. W. Miner was afraid that sponge tents might produce injury to the turbinated bones, when used to pack the nares.

Dr. Rochester believed that we had very efficient means of controlling many such hemorrhage in the hypodermic use of ergot. He was free to say however, that a great objection to its employment was its tendency to produce local abscesses, or even sloughs. On one occasion he was obliged to treat an arm thus affected for nearly six months, and had seen the same accidents occur in the practice of other physicians. When administered internally, he considered ergot of little use.

Dr. Cronyn thought that the essayist had, to a certain extent, confused the classification, by regarding accidental and unavoidable hemorrhage as the same. The use of tents of dry sponge in epistaxis was as old he believed as Bellocq's canula. In general, however, he agreed with the writer and would thank him for presenting the subject so acceptably. One other method he often used for arresting epistaxis, which consisted simply in folding the hands above the head. A rational explanation of the manner in which this produced the desired effect, had been offered some years before.

As to giving ergot by the stomach he considered it useless, but hypodermically it is of great value in arresting many of the accidental hemorrhages. He thought the abscesses were often due to the occasional introduction of the needle into the muscular tissue.

Dr. Hartwig had seen such results as those mentioned by Dr. Rochester, and considered them to be due to the idiosyncrasy of the patient. He could hardly conceive how an intelligent physician could introduce the needle into muscular tissue.

Dr. Bartlett replied to these criticisms by saying that the use of tents of compressed sponge was original with him as far as he was aware, and did not remember having seen it employed by others. The means proposed were only such as he would use when prompt action was demanded, and when resort to medication of any kind would necessitate some delay.—*Extract from proceedings of Buffalo Medical Association.*

EUROPEAN CORRESPONDENCE.

PARIS, FRANCE, July 22, 1878.

Surgery is a branch of the art curative in which national peculiarities may be very distinctly seen; and while, according to first-class surgeons of each country, the same amount of operative skill and an equal amount of scientific acquirements are necessary, the operative manner of the surgeons of two races appears to be absolutely

distinct and different, and becomes almost national in its character.

I was led into this vein of thought by seeing the difference between the operating rooms here and in London. I very well remember being present at some operations performed by one of England's most distinguished surgeons. Around the operating table whereon lay the patient were grouped the surgeons, two assistants, the anæsthetizer, and a nurse to pass sponges, and these never left the positions in which they were placed, nor did one at any time appear to undertake the duties of the other. Two other nurses were in the room to wash and carry sponges, etc., and a half dozen privileged spectators, to whom were assigned more elevated positions, completed the number of witnesses. During the operation not an audible word was spoken. A whisper may have passed now and then between the operator and his assistants, but there was no talking. Instruments, etc., appeared to have been thoughtfully placed just where they would be most convenient, and everything seemed to be at hand just when wanted, without the necessity of asking for it. Silence was, as I have observed, strictly maintained—I might say enforced, for one of the visitors, venturing to indulge in a whispered conversation with his neighbor, it became audible to the surgeon, who quickly called him to order.

This is one extreme. I do not wish to convey the idea that such strictness is always observed in England—far from it; but there certainly does appear to be lines distinctly drawn, either by rule or conventionality, which the parties do not overstep.

Now let me describe the opposite extreme. The operator is a deservedly distinguished Parisian surgeon. His assistants, to the number of seven, with two nurses, await him in his operating theater, which is well filled with spectators. After a lucid explanation of the case and the methods to be adopted, the operation commences. Chloroform has been administered, and the breathing becoming a little suspicious, the tongue has been seized with a forceps, and now, as the operation proceeds, it becomes evident that the anæsthetizer is a student, and more inter-

ested in the progress of the case than in the particular department to which he has been assigned; and so the patient's head lolls to one side, partially suspended as it were by the tongue, dragged out at one corner of the closed mouth. This does no harm, it is true, but it makes an unpleasant impression on the spectators. Then, as the operation proceeds, it will be observed, that the instruments have been placed inconveniently at a considerable distance from the operator, so that he has to call for what he wants perhaps twice or three times; then, when he is done with an instrument for the present, it is not replaced in its proper place, so that the next time it is wanted it cannot be found. Next, the sponges appear to be wrong; they are not the right size—either too large or too small; they are too wet, they are not at hand when wanted, or the assistant does not use them at the proper time. To remedy this, all the assistants begin to pass instruments and sponges, and then the spectators become interested, and some of them invade the arena. I have counted twenty interfering with the assistants and obstructing the view of those who remain in their places. All this time, notwithstanding all this hubbub and fuss, the operation is progressing grandly, the operator talking incessantly—now calling two or three times for an instrument or a sponge, now grumbling at the slowness or clumsiness of his assistants, and now explaining some difficult point he is attacking; and so the surgeon proceeds, performing his part as quickly and as dexterously as it can be done by any man in the world, and obtaining as fine results.

This, too, is an extreme case. The picture is not extravagant nor overdrawn, but it is on the other end of the line from the description of the English operating-room I have just given. Between these two there exists, of course, every possible variety, and they are expressive of a national character which is to be seen every where and in every act, and which, as I have shown, is manifested even in the operating-room of the surgeon.

The meagre accommodations offered to students cannot fail to strike an observer. The lecture-rooms of the Eeale

de Medicine are a disgrace to the nation. Seats without backs, without any convenience for taking notes, no means for access except by walking on the seats, which, as an invariable result, are filthy in the extreme; and here the students sit, many of them disrespectfully keeping their hats on during the lecture, simply, I suppose, because the authorities have not provided any more convenient place to put them. In this respect Paris, which spends thousands upon thousands of franks on an illumination, is far behind the civilization of the age.

M. Bouchut has been delivering, at the "Hospital des Eufauts," a series of most interesting and instructive lectures on cerebroscopy; in other words, on the diagnosis of diseases, or conditions, of the brain, by the inspection of the eye. The theory that conditions of the brain and appearances of the eye run parallel the one with the other, the eye taking on appearances indicative of unseen changes going on in the brain; thus, whatever obstructs the flow of blood in the veins in the brain is followed by venous congestion of the retina; and so with arterial congestion, the obstruction or arrest of arterial flow in the brain is followed by a similar condition of the retina, and thus death can be infallibly distinguished from trance. Tubercle in the brain is invariably accompanied by tubercle of the retina, and so on. Many of the investigations are quite modern, and his lectures are profusely illustrated with specimens shown by the oxy-hydrogen light.

In the wards, Mr. Bouchut took much pains to show me some very interesting cases: one of purpura hemorrhagica, treated by direct transfusion. In this case the number of red globules had descended as low as 577,875, and the white had once reached a minimum of 7,613 in the M. M. cube; the normal proportion being 5,000,000 red and 6,000 white. The case is progressing favorably, and the very accurate notes which are being kept cannot fail to be of great interest, showing some curious variations in the relative proportions of red and white globules, which appeared to oscillate independently of the actual number of either present. But probably it will be more satisfactory to give

the actual numbers given to me as the results of nine examinations, and attach the proportion to each :

	ONE CUBIC MILLIMETRE CONTAINED.		BEING A PROPORTION OF		
	White Globules.	Red Globules.	White Globules	to	Red Globules.
1	8.500	929.625	1	to	109
2	7.613	1.407.100	1	to	184
3	17.901	2.010.000	1	to	112
4	9.829	1.482.375	1	to	149
5	8.200	854.250	1	to	104
6	25.115	678.375	1	to	27
7	21.775	778.875	1	to	35
8	10.887	978.000	1	to	89
9	8.375	577.875	1	to	69

According to M. M. Duval and Lereboullet, the average proportion in health of white to red globules is 1 to 350, "but" "the number of white globules tend to diminish under the influence of abstinence or advanced age (1 to 1000) it is more considerable, on the contrary after a meal, after a purgative, during pregnancy, after hemorrhages and in children."

Here were also cases of albuminuria progressing towards recovery under a treatment by Fuschine, the maximum dose being 50 m grams and not the least interesting cases were different cases of chorea treated successfully, some with arsenic and others with tincture of gelsemium sempervirens.

R. J. NUNN.

PARIS, FRANCE, Aug. 3d, 1878.

The microscope is to-day an absolute necessity to the accomplished physician ; cases may occur at any moment in which it may be his only means of diagnosis, and without it he will be only ignorantly stumbling in the dark. It is very far from my desire to convey the idea that each physician should be a skilled microscopist. That is impossible. It would be absurd to expect it. Ridiculous in the busy practitioner to attempt it, because the study of any one department of microscopy has now become wide enough to engage the entire attention of one person, but what I do consider possible and necessary is that each physician shall be acquainted with the manner of mounting

microscopic specimens which can be sent to specialists at a distance and enable him to bring to bear upon his case the experience of the world, if necessary. This is practicable, possible, and useful, and if to this is added a fair knowledge of minute pathology, it is all that can be required. A curious case or two occurring in the practice of some of the most celebrated European practitioners which have come to my knowledge and of which I have seen specimens, will serve to illustrate my meaning.

Here is a case of pus in the urine—from whence comes it? The quantity is but small to be sure, but then it is, and a dozen examinations fail to detect any of the epitheliums of the urinary organs; then came the idea that perhaps it might be one of the more delicate epithelia which would be destroyed by laying in urine; drops of urine were obtained fresh as secreted by the patient; the preparations were so mounted as to fix the elements present and the microscope then demonstrated the presence of epithelium of the pancreas, in short, carcinoma of the pancrea opening into urinary apparatus was diagnosed, of course an unfavorable prognosis was given and it is needless to say the patient died.

Another case having all the appearance, and supposed to be pus in the urine, proved upon careful scientific examination to be the white globules of the blood.

A most curious case was one in which a patient was attacked with swelling of one leg, apparently cutaneous, then vesicles appeared, which, when examined by transmitted light, seemed to have one or two little papilla running into each, when punctured a drop of serum exuded, which if wiped away was succeeded by another and this could be repeated apparently indefinitely. If left to themselves the vesicles either burst and then dried, forming a crust, or else dried and formed a crust without bursting. I need not say that the attendant was "non plussed" and would not say what the case was, but the microscope showed white blood globules in the serum of the vesicles, the case was diagnosed as a disease of the lymphatics, treated and cured.

In the practice of M. Vaisin, at Salpetriere, I saw the

injection of sheep's blood (*venvus*) into the cellular tissue used as a substitute for transfusion. This is the fourth case in which M. Vaisin has employed this remedy, one of which was unsuccessful, the patient being in "*articulo mortis*." It is to be hoped this may prove a sufficient substitute for transmission over which it has the great recommendation of extreme simplicity, nothing being necessary but to fill a syringe with the warm venous blood and inject it through a canula into the tissue, covering the aperture with a bit of plaster. Into the case I saw, about one and a half or two ounces were injected, and the sole precaution required is to avoid the use of arteriel blood, a very small quantity of which, M. Voisin assured me, would result in the formation of an abscess.

Speaking of transfusion, I saw the other day a most melancholy case. Going into the rooms of a medical friend, I met a young man, who, without having the build or figure of a consumptive, had all the other appearances of the disease most unmistakably. After he left I enquired his history and was told that he was a physician, who previously healthy, and without the slightest taint in his family of hereditary disease, had allowed transfusion to be performed for the benefit of a wounded man, a patient in one of the hospitals. He was shortly afterwards attacked with tubercles in both lungs, and is now himself just fighting with death.

Here is something decidedly new in therapeutics. I translate from a morning journal: "A few days since we described a substance sold as a plaything for children at two cents, which had the property of enflaming when coming in contact with any liquid."

"A singular communication has been made to us on this subject as follows:

"It appears that in Germany this substance is employed to correct children who have the deplorable habit of forgetting themselves in bed.

"When a child is subject to incontinence, they place under the sheet a very small lot of the substance in question. At the first contact with liquid the substance enflames, and the child, slightly burnt, is reminded of his

imprudence, and corrects it. This means is sharp, but very efficacious, say the Germans."

The application of the remedy, if not exactly practicable, has at least the merit of novelty, originality and ingenuity.

At the clinic of M. Onimus, I saw several interesting cases under electrical treatment. One in particular, a case of general glandular enlargement of the right side, involving all the glands from the parotid to the axilla, was being treated by electrolysis, the result so far being favorable. M. Onimus employs for the constant current a very compact form of the Daniel element modified by himself.

Here I would like to mention that for some years, certainly five or six, I have altogether discarded the use of needles in electrolysis. I found them difficult to keep in order. If made of steel, they rusted, in spite of gilding, etc.; if of gold they were too soft to penetrate the skin, and finally the tissues clung to the non-conducting varnish with which they were coated (except the points) in a most inconvenient way. To remedy these evils I employ a fine trocar and canula, or a hollow needle, and a wire coated with varnish except about half an inch at each end. The trocar and canula being introduced, the trocar is withdrawn, the canula being left in position. Through the canula the coated wire is now introduced, and held in place while the canula is withdrawn, and finally the connection is established with the outer end of the wire by a small binding screw, or otherwise. For coating the wire, I have found collodion very convenient, and it answers every purpose. This method has another great advantage, *i. e.*, that any metal, however soft, may be used for the wire, and so zinc may be deposited in the center of a tumor by using a zinc wire, which is not unfrequently a desirable plan of treatment.

In the gynecological clinic of M. Cheron, some interesting cases were presented. Here I found the duck-bill speculum in use, and galvanism is much in requisition. The battery employed is peculiar to M. Cheron, and consists of a piece of carbon in a porous cell, into which is packed binocide of manganese and protochloride of mer-

cury. Water and zinc in the outer jar complete the combination, which M. Cheron says only acts when the circuit is closed, and will last for two years. In this practice the Hodge pessary appears to be the favorite, at least for retro and antiversions. Menorrhagia is successfully treated by the interrupted continuous current. Epithelial inflammations of the os and cervix are combatted with alcoholic solution of prussic acid or with salicylic acid, and some interesting cases of vaginitis and blennorrhagia, as the result of spinal irritation, were shown, which, though not modified by local treatment, were finally subdued by treating the spinal irritation. The medication adopted here for piles is the internal administration of capsicum and the local application of chalk ointment and douches.

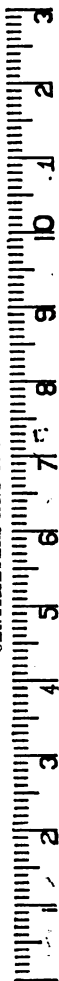
R. J. NUNN.

TREATMENT OF DALTONISM BY FUCHSINE.—M. Delbœuf has found that when a person afflicted with color-blindness looks through a solution of fuchsine, his infirmity disappears. M. Javal has turned this discovery to advantage by interposing a thin layer of gelatine colored with fuchsine between two glasses. It is claimed that the daltonic infirmity is corrected by the use of these glasses.—*La France Medicale*.

Editorial.

Inasmuch as the international decimal or metric system of weights and measures will be adopted by most, if not all, civilized nations in a short time, we think proper to call the attention of our readers to the fact frequently. The centigrade thermometer is also proposed instead of Fahrenheit, which is used exclusively in this country. We give below tables of metrical weights and measures, and their equivalents in our present system, with scales for the centigrade thermometer and the measure of length in meters:

CENTIMETERS AND MILLIMETERS.



FEDERAL MONEY.

10 mills make one cent.
 10 cents make one dime.
 10 dimes make one DOLLAR.
 10 dollars make one eagle.

WEIGHTS.

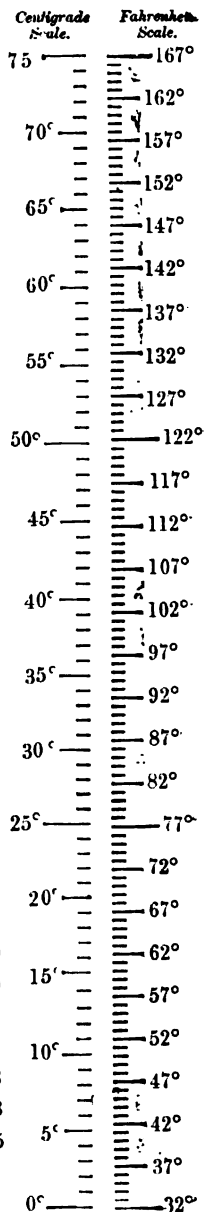
10 milligrams 1 centigram = gr. 0.15.
 10 centigrams 1 decigram = gr. 1.50.
 10 decigrams 1 GRAM = gr. 15.43.
 10 grams 1 dekagram = 3 2 57.
 10 dekagrams 1 hectogram = 3 3.21.
 10 hectograms 1 kilogram = lb. 2.67.
 10 kilograms 1 myriameter = lb. 26.70.

CAPACITY.

10 milliliters 1 centiliter = fl. 5 2.56.
 10 centiliters 1 deciliter = fl. 3 3.20.
 10 deciliters 1 LITER = o. 2.00.
 10 liters 1 dekaliter = c. 2.50.
 10 dekaliters 1 hectoliter = " 25.00.
 10 hectoliters 1 kiloliter = " 250.00.

LENGTH.

10 millimeters 1 centimeter = inch 0.39
 10 centimeters 1 decimeter = " 3.90
 10 decimeters 1 METER = ft. 3.25
 10 meters 1 dekameter = yds. 10.83
 10 dekameters 1 hectometer = " 108.33
 10 hectometers 1 kilometer = " 1083.33
 10 kilometers 1 myriameter = miles 6.15



EXCERPTA.

THE CHINESE QUESTION IN ITS MEDICAL BEARINGS.—It is always to be sincerely regretted when scientific men misuse facts to bolster political and social prejudice. We cannot but regard in this light some of the recent expressions of the California medical press in regard to the Chinese. Everybody knows that the jealousy of the rabble and the discreditable enmity of the "hoodlums" (*who have votes*), have so infected the political parties of that State, that hardly a man is to be found there honest and bold enough to stand up for the principles for which this free government was founded. They are all willing to deny and renounce the one great foundation principle of our Declaration of Independence and Constitution, at the beck and order of the lowest and narrowest class. The Christian religion and the natural freedom of man are declared to be unable to withstand the introduction of Mongolian emigrants!

That even medical men should cater to this nothing else than contemptible subserviency (or disgraceful cowardice), we did not expect; and were, therefore, painfully surprised to find the *Western Lancet*, in a long editorial, some months ago, trying to stir up and disseminate this prejudice, not only in California, but elsewhere in this country. It prints an appeal on the subject, which we give the benefit of circulation. After speaking of the number of prostitutes in San Francisco, "mostly young girls of the Mongolian race" (in passing, we add, that there is very positive authority for saying that the majority of prostitutes in San Francisco are *not* Mongolians,) and that, of course, syphilis is common, the writer proceeds:

"While the labor question may engage the attention of the community, legislators, and the nation at large, the subject of social evil, and the engrafting of formidable types of disease on our race, should occupy the attention of medical men.

"Leprosy is another of the gifts of Asiatic civilization to mankind, and are we to lie idle and allow this to be engrafted on the future generations that will occupy our

places when we have paid the last debt to nature? We trust that the medical men of this State and the adjoining States will give these subjects their attention, and carefully follow up the suggestion, tracing to their origin many of the sad cases of necrosis, tubercle, paralysis in all its varied forms, and the multitude of hydra-headed marks that this foul disease entails on man when contracted in early life. Also, if there is not a specific difference in the type of disease which is introduced from the Mongolian race and that with which the Caucassian race has been afflicted for ages, under the rule of indiscriminate intercourse."

Now, *we trust* that this utterly groundless appeal to the passions and prejudices will meet with the condemnation it deserves. There is notoriously not the slightest basis for the assertion that "Mongolian syphilis" is one whit worse than the genuine native American article. The reports of the British Hospital, at Hong Kong, for many years past, are printed and easily accessible, and prove the falsity of the charge. The assertion that, because leprosy finds its historical origin in Asia, we should forbid all Asiatics our shores, shows the narrowness and worthlessness of the anti-Chinese arguments. Leprosy is, and has been, more prevalent in western than in eastern Asia. Especially severe has it been in Judea, whence, however, we have another "gift of Asiatic civilization," to-wit, the Bible, which teaches us the brotherhood of man, and specifically that, if a man is a leper or a woman a Magdalen, we should not, on that account, shut our doors to them and forbid them our presence. Yet, just this is what this specimen of American civilization calls upon the profession, whose mission is the healing art, to do.

The whole anti-Chinese agitation is an outcome of the worst and lowest enmities of selfish class strife; it has been fostered by narrow-minded or unscrupulous demagogues, in order to catch the votes of the masses; it has extended by a contagion of mistrust and bigotry far more to be feared than leprosy, to the cultivated, even to the philanthropic, few. Now that it is deliberately urged on the medical profession, this journal pronounces on the po-

sition it shall take in language of no uncertain ring. The Chinese ought to receive as warm a welcome throughout the whole of this broad land as the German, the Irishman, the Englishman, or the African. Our gates should be opened to them without restriction; his comings and goings should be aided and encouraged; the selfish classes who would abuse him, and the blinded men of education who berate and falsify about him, should alike be repressed—the one with the prompt and strong arm of the law, the other with the open and general condemnation of their enlightened compeers.—*The Medical and Surgical Reporter*.

SEVEN GOOD RULES FOR PRESERVING THE EYE-SIGHT.—Dr. H. C. Angell, in his little book on "How to take Care of our Eyes," recently published in Boston, gives the following rules to be carefully observed by all persons who have a tendency to weakness of sight, or who experience unusual fatigue of the eyes in reading or other occupation requiring close use of the eyes:

1. Cease to use the eyes for the time being, and look away from the work, when sight becomes in the least painful, blurred or indistinct. After perfect rest for a moment or longer, work may be resumed, to be discontinued as before when the eyes feel again fatigued.

2. See that the light is sufficient, and that it falls properly upon your work. Never sit facing it. It is best that the light should fall upon the work from above and behind; failing in this, it may fall from the side. Never use the eyes at twilight. Any artificial light for the evening is good, if it is brilliant enough and steady. When artificial light is at all painful, it is safer to read or write only during the day.

3. Never read in the horse or steam cars. It requires too great an exertion of the accommodative power to keep the eyes fixed on the letters.

4. Never read when lying down; it is too fatiguing for the accommodative power. Many a tedious case of weak sight has been traced to the pernicious habit of reading in bed after retiring for the night.

5. Do not read much during convalescence from illness. Before the muscular system generally has quite recovered its healthy tone, we ought not to expect the muscles of accommodation to bear the continuous use to which they are subjected in reading or writing. We can not be sure that the delicate muscles of the eye are in a condition to be used until the muscles of the leg and the arm have regained their strength and firmness.

6. The general health should be maintained by a good diet, sufficient sleep, air, exercise, amusement, and a proper restriction of hard work.

7. Take plenty of sleep. It is a sovereign balm for those who suffer from weak sight. Retire early, and avoid the painful evening lights. Ten hours' sleep for delicate eyes is better than eight.—*Boston Journal of Chemistry.*

OFFICIAL OR OFFICINAL?—We are loth to suddenly part company with old friends, be they human, trophies, theories or words that may have become endeared to us by association or usage, yet this tie should never be so strong as to lead to the prejudicial side. Whatever is correct should be adopted and used, even though its discovery was not given to the fathers, but left to the sons. The adoption of *official* will be doing a justice to our language by giving to the word its rightful place, so long falsely occupied by *officinal*.

The term *officinal* is in favor with many because of its long usage; no thought being taken of its correctness or incorrectness.

No doubt the botanical use of *officinal* as a specific name for plants used in medicine, as *althæa officinalis*, *zingiber officinale*, etc., has been one of the chief means of giving the word its prominence with the medical and pharmacal fraternities, but in giving specific names to plants already much used, and to be had in the apothecaries' shops, botanists meant merely that the particular *althæa* or *zingiber* should thereafter be known, for distinction only, as the species "of the shops," or *officinal*, the word having no reference to authority. Now, medicines that are recommended to be used by such bodies as

the National Pharmacopœial Convention, British Council, etc., are *official*—given under authority—in the countries over which they have jurisdiction.

It is true that both words are derived from the same root, but *officinal* is the older, coming to us directly from the Latin *officina*, a shop; while *official*, the younger, comes to us through the French *officiel*.

"An *official* formula is one given under authority. An *officinal* formula is one made in obedience to the customary usage of the shop (*officina*). To state that any preparation under the sanction of the Pharmacopœia is *officinal*, is a misapprehension of the meaning of the word."—*Brough*.

"The Pharmacopœia and all in it are *official* (*office*, Fr. from L. *officium*, an office). There are many things which, in pharmacy, are *officinal* (Fr. from L. *officina*, a shop) but not *official*. To restrict the word *officinal* to the contents of a pharmacist's shop, and to that portion of the contents which is pharmacopœial, is radically wrong, and should be avoided."—*Note to Attfield's Chemistry, 5th Ed., p. 25*.

It has been objected that the "innovation," as it is called, has no where received support. In refutation of this I note that it has already been adopted by Professor Attfield, in his "Chemistry;" Mr. Squire, in his "Companion to the British Pharmacopœia;" Mr. Wills—the most successful teacher of preliminary pharmacy in England—in the Westminster College of Chemistry and Pharmacy, and in our own country by the United States Marine Hospital Service. This ought surely to be authority sufficient to warrant the luke-warm in deciding in its favor, since the outlook is so bright.

Official has another advantage; it is one syllable shorter than the old word.

The objection that the word is new cannot obtain, because it long has been, and is in daily use in governmental circles. It is only taking a new direction.

The customary use of the term *unofficial* is radically wrong—its true meaning being that anything that is *unofficial* is not to be had in the shops; while many articles that have never been accredited a place in any Pharmacopœia, and others that have been expugned, are con-

stantly kept on sale in the shops. This ambiguity will cease to exist with the adoption of the term *unofficial*, which has but one meaning in medicine: not recognized by national authority.

In view of all this, I beg authors that are about to issue books that may be used as authority, and the Pharmacopœial Convention of the Sixth Revision, to note the term and adopt it, thereby accepting the inevitable.

I hope we may not be given an opportunity to say, with Job, "They have refused to receive correction."—*American Journal of Pharmacy*.

TRAVEL IN PHTHISIS.—James Edward Pollock, M.D., F.R.C.P., in *Medical Times and Gazette*:

1. Never permit any patient to travel who is not in the quiescent stage of disease, or who, in other words, is feverish, with high evening temperature, and the physical signs and conditions already described to you, indicating the continuous form of phthisis. Observe this rule, and you will be successful; break it, and your patient and his friends will not thank you.

2. None of the secondary complications should be present, as continuous or frequent diarrhœa, serious gastric disorder, or laryngeal irritation.

3. Chronic single cavity, with retraction of walls accomplished or proceeding, is favorable for removal to a dry, bracing locality, if the hæmoptysical element be wanting in the case.

4. That form of disease which I have described as diffused deposit in one lung, without much dullness or signs of massing of disease, with pretty large chest, and with moderate emaciation, generally does well on a sea-voyage.

5. A first-stage case already chronic does best for traveling about, with frequent change of residence. The complication with bronchitis or asthma is generally much benefited by change.

6. Persons ought not to travel *at all* with feverish symptoms, with secondary complications, with a large amount of local disease in any stage, with both lungs diseased, with poor digestion and greatly lowered nutrition, or in

such a state of weakness or emaciation as to require comforts, peculiar beds or chairs, or varieties of invalid cooking.

SEVERAL CASES of lead poisoning which have lately occurred in Germany have been found to be due to the direct rays of the sun upon the oil cloth tops of baby carriages in which the children were kept when out of doors. The oil cloth is of American make, and contains forty-two per cent. of metallic lead.

THE McDOWELL MONUMENT, to be erected at Danville, Ky., next spring, will consist of a shaft of granite, thirty feet high. The style will be Doric. On its base is the following inscription: "Beneath this shaft rests Ephraim McDowell, M.D., the father of ovariectomy, who, by originating a great surgical operation, became a benefactor of his race, known and honored throughout the civilized world." On the right side of the base is a laurel wreath, with the inscription: "A grateful profession reveres his memory and treasures his example." On the left side is an historic inscription, with the date of his birth, attendance at the University of Edinburgh, and his first ovariectomy in 1809. On the posterior face is the inscription: "Erected by the Kentucky Medical Society, A. D., 1879." An "ovarian jubilee," says the *Detroit Lancet*, is expected at the next annual meeting of the Society.—*American Medical Bi-Weekly*.

PHIMOSIS AS A CAUSE OF RUPTURE IN CHILDREN.—Mr. J. Arthur Kempe reports, in the *Lancet*, a series of observations which leads him to believe that phimosis is not an unfrequent cause of hernia in infants. He states that the sequel of events is probably as follows: The abdominal parietes are naturally weak in children, which renders them less able to resist impulses which project the viscera against weakened parts. Here, then, is a remote or predisposing cause. The exciting cause is readily supplied by the frequent and continued efforts that the child makes to overcome the obstruction offered by the tight prepuce, and by the cries uttered consequent on pain caused in making these efforts.—*Med. and Surg. Reporter*.

A MAN WHO BURST.—We have all of us, in early life, had held up to us as a warning, when too voracious, the terrible story of the boy who ate so much that he burst! The learning of maturer years led us too hastily to discredit this frightful example; for here, in the last number of the *Vierteljahrschrift für Gerichtliche Medizin*, July, 1878, Dr. Bremuse gives a detailed account of a man who literally burst, split his diaphragm in two, and died, from eating four plates of potato soup, "numerous" cups of tea and milk, followed by a large dose of bicarbonate of soda, to aid digestion. His stomach swelled enormously, and tore the diaphragm on the right side, causing immediate death. The case is probably unique.—*Phil. Med. and Surg. Rep.*

VENEREAL SORES—IODOFORM.—Locally, iodoform, as a dry powder, brushed lightly over the surface with a moistened camel-hair pencil, has been for three years my almost invariable treatment for venereal sores, especially the local chancre. During the last few months I have often substituted for the dry powder an ethereal solution (one part of iodoform in six or eight of ether). The sore is touched or dabbed with a pencil dipped in the ethereal solution, according to its size and depth, lightly or copiously. The ether quickly evaporates, leaving a thin pellicle of iodoform, that as effectually stays the spread and produces healing of chancres as does the more copiously applied dry powder. Thus the surface is covered more exactly, and the disagreeable smell of iodoform is too faint to attract attention. The sore is well washed with water and dried before the iodoform is applied, and the surface is lastly protected by a bit of dry lint. When the secretion is abundant, the dressing must be renewed twice daily, but in three or four days the amount of discharge becomes so scant that one dressing *per diem* suffices. In this way venereal sores heal quickly. Pain subsides at once; the sore is well in a week or ten days, and the chances of consecutive inoculation or bubo are greatly lessened. In a very few cases the application of iodoform gives momentary smarting, which is very bearable; even the ethereal solu-

tion does not hurt, and usually the patient declares the application to be quite painless. I avoid using iodoform on inflamed sores, or on simple granulating wounds; but indolent non-specific ulcers are rapidly improved by iodoform locally applied. (Mr. Berkly Hill, p. 180.)—*Braithwaite's Retrospect of Practical Med. and Surg.*

WOUNDS.—The most simple application for sealing up wounds is the old-fashioned tincture of benzoin, and it is the most successful. By it nearly all fresh wounds heal rapidly, while they do not do so under watery and fatty dressings. Tincture of benzoin has a remarkable property of uniting tissues and combining with blood. It is antiseptic, and, assisted by cotton-wool pads of lint and firm bandaging, will arrest hemorrhage from all vessels less in size than the radial artery. Non-recent wounds which suppurate it is not desirable to heal by adhesion. The most important item in the treatment of these is ventilation with as pure air as possible. None but the most evil results follow the application of waterproof materials, such as oiled silk and gutta percha tissue over the dressings. Such wounds invariably stink and slough; the wound is made unduly hot, products of decomposition are retained, the surface has a grayish, grumous aspect, and loses substance daily. A simple piece of lint or muslin covered by cerate, or dipped in lotions of Condyl's fluid (1 to 40), or tincture of myrrh and water (1 to 20), spirit and water or weak carbolic acid lotion (1 to 60), with just a layer of bandage to retain the dressing in its place, is all that is necessary, save a daily syringing and washing with warm Condyl's fluid and water. (Mr. Philip Cowan p. 124).—*Braithwaite's Retrospect of Med. and Surg.*

TREATMENT OF DIPHTHERIA BY THE FRENCH SCHOOL.—Diphtheria is very prevalent just now in the French capital, and naturally occupies the attention of the most eminent practitioners in Paris. Hitherto the method by "substitution," or the conversion of the specific into simple inflammation, has been the one usually employed, particularly by Bretonneau and his illustrious successor,

Trousseau. The latter, however, was fully acquainted with the specific nature of the diphtheria poison, yet continued the practice which experience had shown to be utterly futile. It has been remarked, on the other hand, that the failure of local remedies depends on the circumstances that those employed are not addressed to the specific elements of the disease. M. Revillent's experience leads him to conclude that we possess such a remedy in lemon juice when applied to the false membranes, and also administered internally in large doses. It would truly seem to be a specific, as the author assures us that he has not lost a single case in which this method has been fully and fairly carried out.—*London Med. Examiner*.

THE PERIODICITY OF EPIDEMICS.—An interesting study of this subject, as applied to measles, in London, has been published by Dr. H. Courtenay Fox, in the *Medical Times and Gazette*. His conclusions are that a twofold law of periodicity has been disclosed. The successive epidemics have recurred with tolerable regularity, and without any marked exception to the rule, at intervals of about two years. Beside this, the severity of the disease appears to be subject to fluctuation, in accordance with a wider cycle of nine or ten years. If, in the future, measles observes the same rules by which its known course has been hitherto directed, we may assume that London is near the commencement of a fifth group of years, in which the epidemics will be rather more frequent and fatal than during the last decade.—*Medical and Surgical Reporter*.

THE PERIODICITY OF YELLOW FEVER.—The following positions are maintained by Dr. Robert Lawson, in a late number of the *Lancet* :

1. Yellow fever is not a disease always presenting the continued form, but it is met with frequently as a remittent, and sometimes as an intermittent.

2. The sporadic cases, presenting yellowness of surface and black vomit, are also found to have the train of urinary symptoms characterizing yellow fever, and are consequently identical with those met with during an epidemic.—*Ibid*.

ATLANTA Medical and Surgical Journal.

VOL. XVI.] OCTOBER—1878. [No. 7

Original Communications.

INTRODUCTORY LECTURE
TO THE COURSE IN ATLANTA MEDICAL COLLEGE FOR THE
SESSIONS OF 1878-9, DELIVERED OCT. 15, 1878.

By PROF. J. T. BANKS.

GENTLEMEN: In behalf of my colleagues, I welcome you as students in the Atlanta Medical College.

This duty is made more pleasant by seeing so many familiar faces before me. Nothing can be more encouraging to us as a faculty. It gives confidence; it impresses on our minds the conviction that our past labors have been appreciated by you, and at the same time inspires a greater zeal in our renewed work. I bespeak for my colleagues a zealous and interested course of lectures—interested in the advancement you make in your studies, and interested in your success. The relationship which begins to-day between us as teachers and pupils I earnestly hope will be both pleasant and profitable. We would not have you feel as strangers toward us, for I assure you the same feeling and anxiety which you all experience as pupils, we have, under like circumstances, more or less felt; and a detailed history of medical students would fill a volume with repetition of similar feelings and emotions. While we command your confidence and respect, we will treat you collectively and individually as gentlemen. It may be well in this connection to call your attention to, and caution

you against, an error too often committed. Think not that, because you are away from home—beyond the watchful care of parents and friends—medical students among strangers—that you can waste your hours for study in idleness, intemperance or improper company without cognizance of your deportment. At the very moment when you think no one heeds you, many eyes may be upon you. In your student's diary is noted your future character—your chances for success as doctors and as business men in the world. Then how important the record you make! In making your choice of a business for life, you have no doubt noted the vast amount of study, labor and self-denial that are necessary in your student life to insure professional success, and it is well calculated to discourage the beginner; but let me assure you, my young friends, that there is no profession worthy of being pursued which does not require much exertion, much labor and many sacrifices by those engaged in it; nor do I know of any in which he who has the necessary qualifications is surer of success. To succeed, you must have a fixed purpose. A thorough determination to attain an object is the first step toward its attainment. There must be no faltering, no turning to the right or left. Come to the lectures promptly and give them attention, and you shall be guided safely to the goal of your ambition. You have determined on your course, and are to-day in a great measure relieved of your responsibility to others, and in like manner are responsible to yourselves for your improvement of the passing hour. Your fortunes are in your own hands. You can make them or mar them, as you will. Fortuitous circumstances may do much to make the man; they may do more to undo the unqualified doctor. Grant that now and then the idle student is forced by his surroundings to cultivate his talents, and he grows into a practical and useful man. The road he travels is a rough one, and the number of such successes will only make the exceptions to a rule. Friends and fortune may place on the unmerited brow a dazzling crown, and it may be worn gracefully for an idle while—yea, it may be envied by the toiling student; it would be but natural. But on a time the hand

of affliction will be extended for aid—the rushing life-blood from some injured artery must be arrested by the prompt application of the ligature. Skill, knowledge and confidence are required—decisive, wisely-directed action can alone save the sufferer. The tale is soon told in the death of one and ruin and disgrace of the other.

If your ambition is low, and you wanting in principle, your success will be mean and your position debased. If your ambition is high and principles just and noble, your success will be great and your position honorable.

Gentlemen, I would beseech you not to limit your present ambition to a successful examination at the close of the lectures. If that should be the limit of your ambition, it is easily obtained and you easily satisfied. A higher aim should be made, and much more is expected of you. Be not content with barely getting inside the green room dead-line. There is no good reason why a young man should not succeed in getting a diploma, if he has sense enough to entitle him to it.

Let us consider some of the causes of failure with medical students.

In the trivial affairs of life we often find the character of men written. "Save no dimes, and there will be no dollars to look after." He who travels a road listless and watchless can give no description of it. You cannot profit by hearing the lectures unless you study them. We see, then, that a careless inattention may be a prime factor in failure. Intemperance leads to bad results through the same channel, and at the same time impairs man intellectually and debases him morally. Too much reliance on books, to the neglect of didactic teaching and clinical observation, I have known to lead to a student's failure. It is bad to know too much and heed too little. Be not overconfident in your own learning, that your time may not be consumed in unlearning. We see, then, that an overweening confidence on memory, without fixing the principles by study and comparison, may be a factor in failure. A life of pleasure is incompatible with a life of business. If the mind is taken possession of by a special vice, or a fondness for a favorite pleasure, it is made incapable to

comprehend the sciences upon which the practice of medicine is founded, and failure must result. Too much thought and anxiety on a favorite subject creates a morbid sensibility, enervation of mind and dwarfing of intellect. The mind, like the body, is improved and strengthened by discipline and cultivation, but you must not forget that there is a limit to its capacity and endurance. More than once have I seen bright minds ruined and driven to failures by the spur of ambition unwisely applied. It is true this is an error which occurs less often than its opposite, for man is naturally disposed to seek his ease and comfort, to shun danger and avoid responsibility. Your pride and ambition must urge you on, not only to success, but by honorable rivalry, to greatness, to fame and to honor. "If you would know what your own powers are, you must use them." All of you have talents—some more in one order, others more in another; let none of them be blighted by indolence, nor wasted in improper pursuits.

The practice of medicine is in a great measure an art—the successful application of which depends upon the knowledge of the several sciences pertaining to it—such as Physiology, Chemistry, Materia Medica, Anatomy and Pathology. To ignore these, or consider them of minor importance, is to sue for a seat on the lowest round, if indeed, any seat be attainable. Of these several sciences, you cannot know too much. The more thoroughly you acquaint yourselves with them, the easier your progress in everything pertaining to the profession.

The world expects to find in the Doctor a well-educated gentleman. There should be no disappointment. Society demands it; the profession demands it, and your own interest demands it. "There is no excuse for a young professional man, who does not devote some portion of his time to the general cultivation of his mind." All general knowledge, whether of literature, of moral or physical science, tends to expand the intellect, and qualify it better for particular pursuits. While we desire the highest possible degree of professional attainment, we cannot ask it through the entire disregard of such mental culture as society expects of Doctors. You can, in a great measure.

select your own position in society : and let me assure you that if you are satisfied with a low or common one, you will not be given a high one. Do not underestimate your abilities—this error, when it exists, is about as pernicious as its opposite. Be not discouraged because you cannot progress as fast as you desire, or as fast as you may suppose some more favorably situated students. The best beginnings are not always the best endings. You cannot estimate yourselves by your present efforts ; neither can your friends predict your future for you. The great men in medicine are not born geniuses, nor are they the off-spring of hasty, careless, or desultory efforts. They are the sons of hard, earnest, methodical work. “ Work that will stand the test of time, and the criticism of competent judges.” The midnight lamp has illuminated their pathway ; a fixedness of purpose has guided their footsteps. They are “ the evidences of trained thought and well-drilled intelligence.” They made no haste to jump through the curriculum of study into the active work-shop of the Doctor—bankrupts in education and observation, and untrained in reasoning and thinking for themselves.

Here let me add the advice of Lord Stanley : “ Study as long as in prudence you can, and don’t fear that life will not be long enough to gather what you have sown.” I assure you, gentlemen, the time you spend in well-directed study, will ever be looked back to with pleasurable satisfaction. To be independent, is a laudable ambition, and to make yourselves independent, you must first be useful. Prepare yourselves for difficulties—meet them in a proper spirit, make the necessary exertion for them. Be prompt and true to your engagements, both trivial and great. Discharge your duties faithfully, humanely and with dignity, and your success and independence are a certainty. You should be under no more obligations to those who employ you professionally than the landlord is to his tenant, or the banker to the man to whom he lends money.

The good feeling and confidence of your friends should be appreciated, and treated with proper consideration. To obtain a proper competency from your services for your-

selves and families, is one of your prime duties; a consideration due your station in life, your comfort and convenience, and due your profession. "He that provides not for his own household, is worse than an infidel." It is, and has been, a noted fact, that our profession is too indifferent to its financial interest. No occupation or profession more justly merits a liberal compensation for their services than the medical, and it is a duty we owe to ourselves and our profession, to force the people to a just consideration of our claims. It is true, that humanity forbids the withholding of our services from the truly needy, nor would I advise anything less than prompt, kind and faithful attention to them; but an intelligent public should by reason of our charity, be prompt and liberal toward us. But I am sorry to say, it is not as it should be. A great portion of the error is our own fault. If you fail to properly estimate your services, there is no way for correction, and indifference and excess of leniency becomes a ruinous fault. When pain and suffering forces open the purse-strings of the close or mean, take a just amount of "*change*," and it will not be regretted. They may be grateful and just in sickness and pain. They are sure to be forgetful, and may be grumblers in health. Be honest, faithful and just in all your actions, and demand prompt and reasonable compensation in return. Indulgence is rarely rewarded, though credit be a necessity, and friendship thus purchased, is sure to falter on pay-day. To be honest, faithful and just, is also essential for good character, and a good character is a large portion of your fortune. A good professional character, a good social character, and a good moral character, all must be acquired, and all sustained. Though your qualifications be perfect, without a good moral character you should not be admitted into the sick room. Show me a Doctor loose in morals, and unguided by the principles of right and justice, though he be a shining light and unsurpassed in business, I will show you in the end a miserable failure, bankrupted in character, and no chance to homestead—confidence lost, and no reclamation.

Your financial success should never be paramount to a

good name. The one may furnish the wants and comforts of the hour, the other a heritage you have no right to barter—but keep, use and transmit. Never seek success at the cost of principle or by false promises, or you will find yourselves in the company of charlatans and quacks, without the good opinion and confidence of your community. Success gained by false pretension cannot last. Such usually end their days in disreputable want. The honor and prosperity of our noble profession will in a short time be entrusted to your care. Be sure of a good preparation for its keeping and its advancement. Give us evidence by your study and progress that you are determined to uphold it, learn to love and practice the golden rule of our profession. “Do unto others as you would have others do unto you,” and you will become what you merit, and act as you will be—Professional Gentlemen.

THE CAUSES OF PREMATURE BALDNESS.

By GEORGE H. ROHE, M.D., ATLANTA.

The great prevalence of early baldness among Americans is a fact daily forced upon the attention of every one whether physician or layman. While itself never fraught with serious consequences, it is yet very annoying, and when affecting the gentler sex, causes frequently such disfigurement as to compel the wearing of artificially arranged tresses, braids, chignons, or by whatever names they may be known.

It is the object of this paper to call attention to some of the causes of this premature falling of the hair, and to suggest remedies for its prevention.

The hair-sheath is nothing but an infolding of the epidermic layer of the skin, having its lower end somewhat expanded, and forming a bottle-shaped sac, from the bottom of which the hair takes its origin. Near the point where the hair-sheath opens upon the skin, there is usually found a small opening in its walls, which is the mouth of a sebaceous gland. The mouth of the hair-sheath

then, is the point of exit, both of the hair and of the secretion of one or more of the sebaceous glands, the function of whose secretion it is to keep the skin and hairs soft and pliant.

Now, in certain morbid conditions of the body, either general or local—more usually perhaps the former—the secretion of the sebaceous glands is increased in quantity and altered in quality, becoming more fluid or more solid than normal. Under these circumstances we have the affection technically termed *seborrhœa*, one form of which—and the only one that concerns us here—is commonly known as “dandruff.”

In the older works on skin diseases, dandruff is usually described as a scaling of the superficial layers of the epidermis. More recent investigations, however, have shown that, in the vast majority of cases, at least, it consists in a dry *seborrhœa*, *i. e.* in increase of sebaceous secretion of an altered character.

This altered sebaceous matter, not finding such ready exit on account of its abnormal dryness, chokes up the hair-sheath, and finally—generally after months or years—leads to falling of the hair and atrophy of the hair bulb.

Any one may easily convince himself of the fact that the scaly matter in dandruff is the altered secretion of the sebaceous glands and not merely a desquamation of the epidermis, by a very simple experiment. If after “shampooing” the head to remove all the scales, a dilute solution of glycerine in water be used on the head once or twice a day, the scales will not re-form as rapidly as before, but in a few days small, hardened plugs of a yellowish, waxy matter, will be found about the base of the hairs, which may be easily removed with the finger nail. The glycerine prevents the rapid desiccation of the sebum, and so gives rise to the formation of plugs instead of scales. These plugs are similar to those sometimes found in *comedo*, with the exception of being firmer in consistence.

A distinguished French microscopist, M. Malassez, claims that dandruff and alopecia are due to a vegetable parasite, the spores of which he has found in great numbers among the scales. As this discovery has not been corroborated,

we may regard it as open to question. It is worthy of notice, however, that M. Malassez recommends similar treatment to that proposed below.

The alopecia consequent on the specific fevers, and other grave constitutional diseases is usually preceded and accompanied by a more or less general seborrhœa. This is especially marked in typhoid fever, syphilis and chronic pulmonary or digestive diseases. In general debility, whether from overwork or other causes, there is very often a marked degree of general seborrhœa present, and it is likewise in such cases in which early loss of hair usually occurs.

Those cases in which patches of the scalp become suddenly entirely devoid of hair, known as alopecia areata, area celsi, etc., are not due to seborrhœa. It is also not probable, as claimed by some, that this variety is parasitic. All our present knowledge on the subject points to nutritive derangement, probably due to defective nervous supply of the hair, as the cause of this form of baldness.

Seborrhœa, then, being in the majority of cases the direct cause of loss of hair, it becomes important to know what remedies are available for the prevention or cure of this condition. When we consider that the causes of this trouble are very frequently constitutional, it will be at once seen that local remedies alone are not to be depended upon. Thus no one could expect to permanently cure the seborrhœa of constitutional syphilis without taking account of the general disease in the treatment. But, on the other hand, systemic remedies, if alone relied on, would nearly always disappoint any expectations of success. A judicious combination of general and local measures is, therefore, necessary for the attainment of the desired result, viz., the cure of the patient.

In all cases of premature alopecia, we should endeavor to determine whether there is any depression of vital power depending either on some grave constitutional disease, as syphilis or tuberculosis, or more commonly on in-nutrition from chronic dyspepsia. Tonics, good food, fresh air, exercise and regular habits suggest themselves to every one. Of medicinal agents, iron and arsenic, which

may be given in combination, and the mineral acids will prove the most useful. The latter are especially indicated when dyspepsia is present. In some cases cod liver oil and iodine are valuable remedies. It will be well to bear in mind, however, that none of these remedies are specifics in the affection under consideration, but only of value on account of their generally recognized therapeutic properties.

Most persons affected with dandruff are in the habit of removing the scales with a fine-tooth comb or a stiff hair brush. Both of these methods are objectionable, as they only increase the trouble by the irritation of the surface of the scalp and the glands which results from their use. A stiff hair-brush or sharp fine-tooth comb should, therefore, first of all, *not* be used.

Having been himself a sufferer from seborrhœa and consequent alopecia for six or seven years, the writer has, as may be supposed, tried a great many remedies with a view to its alleviation and cure. Arsenic internally, stimulating washes or oily applications, containing in the one case, corrosive sublimate, in the other quinine, or tannin; in still another some of the stimulating oils were used with no appreciable effect either on the formation of scales or the depilation. Finally, about two years ago, an item went the rounds of the medical journals to the effect that a French physician, whose name has escaped me, had found that the local use of a five per cent. solution of chloral hydrate was a sovereign remedy for the trouble under consideration. Rejoiced that at last I could appropriately shout "Eureka!" I began to use the chloral wash assiduously for about three months, following the directions given as accurately as possible. At the end of the three months, the production of scales was more rapid and the fall of hair greater than ever. Disgusted with the failure of all the therapeutic measures which had been so highly lauded, I almost decided to let the affection take its own course, and run the risk of a shiny bald pate at thirty. About that time the second volume of Hebra's classical treatise on diseases of the skin* came to hand, and one of

*Hebra & Kaposi; *Hautkrankheiten*, 2 Band. Erlangen, 1876.

the first things I read was Kaposi's thorough article on alopecia. Impressed with the reasonableness of the views put forth by Kaposi, I determined to give his plan of treatment a trial, with the result of checking the fall of hair and diminishing the production of scales in a reasonably short space of time. I have since then recommended the plan in a considerable number of instances, and when it has been faithfully carried out, with uniform success.

The success of the method depends upon the use of an agent which, while mildly stimulant, removes the scales and thoroughly cleanses the scalp. This agent is the German or French soft soap (green soap, *schmierseife*, *savon vert.*) in alcoholic solution. This soap is now imported in large quantities and prescribed daily by the dermatologists of Boston, New York, Baltimore, Philadelphia and other cities. The soap containing an excess of alkali saponifies the fatty matter of the sebaceous secretion, and it is thus easily removed. The alcohol greatly assists this action, and seems also to have an alterative action—if such an indefinite term is excusable—on the glands. The two may be combined, as follows:

R—Saponis viridis, (Germ.),
Alcoholis, aa ʒij.

M.—Solve, filtra, et adde

Ol. Lavandulæ gtt. xx—xxx.

The oil of lavender is added to cover the disagreeable fishy odor of the soap. The above makes a very handsome, orange or wine-colored preparation, with a pleasant odor, to which the most fastidious will hardly object.

This is used as a shampoo every morning or evening, pouring one or two tablespoonfuls on the head. Upon the addition of water, and smart friction with the fingers, a copious lather is soon produced. After keeping up the shampooing process for four or five minutes, all the soap must be washed out of the hair by the free use of warm or cold water, and the hair thoroughly dried by means of gentle friction with a soft towel. The immediate effect experienced is a disagreeable feeling of tension of the scalp, as if it were stretched too tightly over the skull. To obviate this effect, and to keep the scalp from getting too

dry, and thus, perhaps, set up a true pityriasis, it is necessary to follow up the shampooing with some fatty application; which may contain some mild stimulant, thus: Castor oil, 1 part, to alcohol 3 or 4 parts, with a little oil of rosemary or cinnamon, or the elegant pomades and oils of Bazin and other manufacturers may be used. But the best, as well as the neatest preparation that I have employed for this purpose, is the hydro-carbon known in commerce as cosmoline. This is a product obtained from petroleum. It is entirely bland and unirritating; never turns rancid, and is comparatively cheap. It may be obtained in the fluid form or as a soft solid.

This procedure, shampooing, drying the hair and applying the greasy preparation must be repeated daily for three or four weeks. In the course of that time it will be discovered that the production of scales and the falling of the hair has been very markedly decreased. It will then suffice to repeat it twice or three times a week for a month or two longer, after which a good shampoo once a week will usually succeed in maintaining a permanent cure.

Most patients will be alarmed after using this method at first, because the hair comes out in greater quantity than before. This is due to the fact that a large number of hairs are dead and only retained in their follicles by the plugging of the sheath with the accumulated sebaceous matter. The patient should, therefore, always be prepared for this result, and the cause of the increased falling of the hair explained to him.

It is not necessary—though more convenient—to cut the hair short during the treatment.

When the alopecia has lasted so long that the hair-bulbs have become atrophied, nothing will restore the hair on those spots. Our endeavors must be directed to saving what remains. A prognosis favorable to the restoration of the hair must, therefore, be given with caution.

DIPHThERIA.

AN ESSAY READ BEFORE THE KNOX COUNTY (TENN.)
MEDICAL SOCIETY, REGULAR MEETING,
OCTOBER 10TH, 1878.

By A. B. TADLOCK, A.M. M.D., PRESIDENT.

The neophyte tamer, in the handling, soon becomes conscious of a mule's identity, and connoisseurs all agree as to the specific character of his muleship. He is known to be a hybrid, and neither the doctrine of evolution, nor that of spontaneous generation is required to prove that he is a mule. Not so with diphtheria; differences are rife even among experts as to its nature, and applied science fails to prove (to the satisfaction of all) whether the poison is a *tertium quid*, a germinal species, or a venomous breath from an enraged and violated Aeolus;—a miasm, a germ, or a cross.

Judging from the tenacity with which *some theorists* hold their *unproven opinions* to be facts, as a psychological experiment, more might be accomplished by investigating their asinine relationship than science has done as yet to explain the vital properties or mysterious force of diphtheria poison. I mean no reflection upon the frailties of science, but all praise to all laudable or successful efforts. Differences of learned doctors, as to whether there ever existed such a disease, meet us at the very threshold of our investigations, and first admonish us to pause and take evidence. The burden of proof to establish the affirmative does not require *evolution* to transform the *malum Egypticum* or *ulcus Assyriacum* into a new type; nor is it necessary for the more orthodox creed of spontaneity to show that there has been a new generation; for the *advantages* afforded in the defects of diagnosis and the errors of classification offer to both schools a convenient refuge—the one arguing that the disease always existed, but has, up to the present day, been confounded with other diseases; the other claiming that it was recognized by the earliest authorities, and is identically the same in nature, symptoms and pathology, only under a different name.

Skepticism examines the infant carefully as to its personal kinsfolk, its rapid development, and triumphant, but dreadful career—leaving in its wake the untold slain of a thousand fields, made the more heinous with the bitter sorrows and wails of countless disconsolate mothers, as graphically described by Forest and Hecker, by Bretonnean, Treauseau and Chomel, and by Villa Keal, Fontena, Herrera, Cortesius, Fothergill, and hosts of contemporary but none the less illustrious writers, and then coolly declares it a natural offspring only endowed with eccentricities, and should be christened, after its legitimate ancestors, croup or scarletina, Mary or Joseph, and not “the new-born.” I quote only to show what prominence obtains in the belief that diphtheria is not a specific disease. Sir Wm. Jenner, Bart., M.D., F.R.S., Prof. Clin. Med., in University College, London, in a lecture January 16th, 1875, says: “I am now inclined to think, from my further experience, that the two diseases are really identical, that the so-called croup is diphtheria.” West, author of “Diseases of Children,” treats of it as a “form of croup.”

Dunglison, in his work on practice, agrees with Stokes in considering the “diphtherite of Bretonnean” as “secondary croup.”

Dr. Jacobi, of New York, concludes that “croup and diphtheria were identical processes,” differing in “clinical features.”

Dr. Pepper is reported as saying that “it is hazardous in the extreme to assert that those two diseases” (croup and diphtheria) “are radically distinct.”

Some contend that diphtheria is nothing more than aphthæ; others, that it is angina in some of its forms. The inability of pathologists to point out a structural difference between the false membrane of croup and diphtheria is one of the strongest arguments offered in support of the negative. Also, that both diseases are observed to date their origin alike from cold and damp, and that albumenuria appears as a symptom of both.

Slade, of Boston, in his prize essay, says diphtheria is regarded by some as a form of scarlet fever, in which the throat affection is unaccompanied by the eruption which

naturally characterizes the latter, and favors the opinion, because the two diseases prevail at the same time, frequently in the same region, and even in the same family, and "in some instances in those who have been attacked by diphtheria, a rash very similar to that of scarlatina has been observed."

Dr. Snelling asserts that "there are many cases which, without losing their character of scarlatinal origin, so assume the appearance of diphtheria that it is impossible to distinguish them."

In support of the theory that diphtheria is a disease *sui generis*, most standard works proclaim. Not only authors but a long list of medical writers and practitioners of celebrity and great experience in treating the disease, testify to its being a specific disease. It has had its place in classification in medical records and reports, both military and civil, sanitary and professional, until the whole world has become familiar with it, and learned to recognize its identity. Its differential symptoms and course are graphically represented by clinicians, so as to appear in bold relief. In the fading vista of ancient medical literature, contemporary writers gather glimpses of diphtheria existing anterior even to rational classification. Frequent and fearful epidemics are referred to, as of the same disease, only under many different names; such as that described by Hecker in Holland, in 1337; and, afterwards, in the latter half of the fifteenth century, by P. Forest; and that which carried off thousands of children in Sicily and Naples in the seventeenth century; extending its withering sway all over Europe in the eighteenth century; and, unsatisfied, laying siege to the shores of the new world—(1771, Bard. N. Y.)

Displeased with the old nomenclature, Bretonneau, in the nineteenth century, instead of angina maligna, membranous croup, Garotillo, morbus suffocativus, gangrenosa, cynanche maligna, etc., christened the disease with the name of "diphtherite," to represent its fearful history, and his experience during the years 1821-6, whose description and name were adopted by the medical elite of France, among them M. Louis, M'Kenzie, Dariot, et al.,

who concurred in the opinion of the identity of diphtheria as a separate and distinct disease.

The wider extension and perpetuation of the disease over Europe and America during the present century has led to the general adoption of Bretonneau's title slightly anglicised into diphtheria. No course of lectures in any medical college would be complete without one on diphtheria.

Painfully familiar is the name to households throughout the length and breadth of the United States. No croup, no scarlet fever, no aphthæ, no malignant sore throat, but *diphtheria* tells the story of countless graves grass-grown and forgotten, and of fresh graves a day old, all over the land.

It is said that a quarter of the entire population of Albany, New York, suffered during one epidemic, that of 1858-9 (Paine.)

In the terrible epidemics of 1856-'64, at San Francisco, Dr. Tougeaud says: "But few children attacked by it recovered." During 1860-'64, inclusive, Philadelphia buried 2,000 of her children, victims of diphtheria, which would, by late computation, represent 10,000 sick with it.

Of 2,000 negroes on two plantations in Louisiana, 400 died of this disease in one year. But what of yesterday and to-day? According to late reports the nation is scourged with diphtheria from ocean to ocean—here a little and there a little—while yet no great epidemic prevails anywhere. It finds its victims in the country as well as in towns and villages. For the fourth of a century it has visited some one or another of the mountain valleys of East Tennessee, and left numbers of parents childless.

Such being but an imperfect outline of the history of a disease whose identity is so much questioned, great interest would naturally seem to follow in the study of its origin, nature, symptoms and pathology.

The names of writers in support of the affirmative are legion, but their arguments are founded mostly upon clinical evidences.

Differentially, it is claimed that membranous croup ap-

pears generally sporadically, while diphtheria generally is epidemic in character. No one claims that croup is contagious. Contagiousness of diphtheria is yet an unsettled question with many.

Membranous croup seldom attacks children under two or over seven years of age; diphtheria spares no age. Membranous croup appears generally as a local affection of the larynx; diphtheria appears on the tonsils, locally, but is a blood disease. Membranous croup tends to spread upwards in the mouth and fauces, while diphtheria spreads downwards in the mouth, larynx and pharynx.

We have noticed the voice and cough in membranous croup were more husky, and appearing earlier among the symptoms, while in diphtheria, besides being later, they are dryer and sharper. In the former disease death takes place by apnœa generally; in the latter by asthenia usually.

Diphtheria differs from scarlatina in that a rash almost always belongs to the latter, and but seldom is seen in the former, and when it is, appears as an erythematous efflorescence, and not so punctated at first as that of scarlatina. The pulse seems higher in scarlatina than in diphtheria. According to Empis, the membrane in scarlatina is interrupted and aphthous-like, and is easily detached; in diphtheria it is continuous and consistent, and not easily detached. In diphtheria the membrane tends to spread to all mucous or abraded surfaces; in scarlatina it is generally limited to the fauces.

Sequellæ.—Suppuration of the glands of the neck frequent in scarlatina, scarcely ever in diphtheria; also in the former anasarca is frequent, but never known in the latter. Paralysis seldom follows scarlatina, but is common after diphtheria. In scarlatina arthritis is frequent, but not so in diphtheria. Pericarditis is frequently met with in scarlatina, but never in diphtheria. In scarlatina albumen in the urine is a sequella, while in diphtheria, if it does appear, it is an accompaniment.

Irregular and intermittent pulse, with heart-clot or heart paralysis, followed by sudden death, is characteristic.

of diphtheria—never of scarlatina. Second attacks are very rare in scarlatina—very common in diphtheria.

The destructive features of aphthæ are so evident that we only will notice the most prominent—excessive acuteness of sensibility and diffusion of inflammation over the buccal surfaces.

The difference between a tunic of membrane over an unbroken surface and an ulcer with loss of substance is sufficient always to diagnose a case of ulcerative angina from one of diphtheria. Nothing is claimed, we believe, in the histology of the membrane as diagnostic. Reindfleisch says "the membrane in croup is never reproduced." We all know how rapidly that of diphtheria is.

As to the properties of the membrane, much diversity of opinion prevails. Some say it is a superficial exudation not involving even the epithelium—others that the croupous membrane "consists of altered epithelial cells, held together by a protean substance." Rokitsansky thinks the mucous membrane is never interfered with, while others state that the exudation has been seen to penetrate and blend with the mucous membrane. It has been stated that if croup was diphtheria, evidence of blood poison should appear as usual after death; also, that depressing medicines would not be tolerated so well.

This is begging the question, however, for there is still a division of opinion among the supporters of the negative and affirmative, as to whether either membranous croup or diphtheria is a local or blood disease. The latter view, however, is almost universally adopted, and in systematic works it is now treated under the head of general, and not as formerly, under local diseases.

Bretonneau contended at first that it was purely a local disease, but afterwards admitted that the blood became, in severe cases, secondarily affected. Oertel, compiler for Ziemssen, the latest work published, asserts its local nature, and offers as proof that diphtheritic matter inoculated into other parts of the body, fails to manifest itself in the fauces, as it does in a natural case, and as it should do were the disease primarily a blood poison. By the same process of reasoning, syphilitic poison injected into

any other part of the body should manifest its effect upon the glands where it *generally* appears.

The febrile action of asthemic type, alteration in color and consistence of the blood, general tendency of eruption to appear consecutively on different parts of the body, the occurrence of albuminuria with its epidemic and contagious nature, are mentioned as proofs of its being a constitutional disease.

But a negative school again demands proof of its epidemic and contagious nature, contending that it is not epidemic, but of endemic miasmatic origin, and that it is not contagious. "Trousseau steeped a lancet in a freshly removed false membrane and punctured his left arm and tonsils five or six times." Dogs and other animals have been inoculated, and all with negative results. On the other hand the fact of contagiousness has been amply established by the occurrence of actual cases, and by extended experimentation too lengthy for us here to repeat, and non-susceptibility must account for the negative results in like cases and experiments. The general conviction is that it is highly contagious and infectious, but not in the same degree as measles and small pox. I would rather say that a greater proportion of constitutions are capable of resisting or of tolerating the diphtheritic poison without being affected. Upon the same principle one person is easily and often poisoned dreadfully by being near *Rhus Toxicodendron*, while dozens of others exposed to immediate contact with its leaves and branches escape unharmed. Is not the cutaneous exhibit of rhus poison well-known? and will some savant, in the might of his scientific knowledge, tell whether that is a local or systemic poison, primarily? And why not look to the distilling dews and morning mists laden with ethereal fragrance exhaled from nature's luxuriant fountains of living sweetness for some of our woes, as well as to the mephitic quagmires, "sloughs of despond," cess-pools and sewers, or to the infusorial microzomes of vegetable and animal life? Is it not a plausible hypothesis that canine madness is sometimes produced by the conflicting elements of excitement. Even the smell of a rose has been known to

produce violent hysterics. Hay fever may be mentioned as another example. An increase of ozone in the atmosphere is allowed to be concomitant with prevailing diphtheria. But I am not seeking to advance any new theory, only wishing to escape stumbling over those that are so familiar and stale, yet panoplied in the most inexplorable mysteries, even at the risk of my perpetrating something equally ridiculous.

Here we have miasm offered to *unexplain* the essential cause of diphtheria. There we have the unexplainable fungus or cryptogam to confound our knowledge; and lastly, the all present bacteria in its multiple forms, which, like flies as scavengers, come rather as a blessing than as a curse, as has been charged upon their devoted heads. Alas! the good intentions, and presence of the best are sometimes wrongly interpreted.

But, Ebert declares that there would be no diphtheria if it were not for Huitel and Oertel's micrococci. I should think rather that without diphtheria, or its kindred products, there would be no bacterian micrococci, and there would be no septic diphtherial poison, for I believe the septic toxemia in diphtheria is tertiary—a hybrid or mule, if you please—the result of the union of diphtheritic miasm, forsooth, with the products of bacterian or fungoid depredations, and their entering together into the blood. For here is observed clinically a complete change in symptoms, the febrile condition being replaced rapidly by the asthenic. Even the bacteria under the new state, as if verifying the evolution theory, change rapidly from the micrococci to bacterium termo, spirillum tenue, and the various unclassified forms which they are now known to assume. But a possibility of the institution of the psychological experiment suggested in the first part of my paper intimidates luxuriance of thought, and warns me of trespassing on other's pastures, instead of more profitably reviewing some of the *symptoms* and *treatment* of diphtheria.

The special symptoms in diphtheria, and their physiologico-pathological relations furnish an interesting field for thought and investigation. I will notice the swelling

of the glands, and croupal symptoms as of the greatest clinical importance in prognosis. All authorities refer to the nasal and laryngeal complications as the most serious; the latter as premonitory of death by suffocation by reason of the extension of the disease into the larynx and trachea; and the former forebodes lymphatic involvement—swelling of glands, blood poison, and death by asthenia. The difference of the parts, anatomically, must be considered to explain different processes—surfaces thickly supplied with muciparous follicles, as the tonsils, uvula, nasal passages and arches, quickly and easily give up their false coverings; not so with surfaces less supplied with these follicles as the vocal cords. Parts profusely furnished with lymphatics, as the nasal, rapidly, thereby, transmit the poison to the neighboring glands causing them to swell—and thus, too, the blood becomes vitiated—while the tonsils, the palatine arches and uvula, which are sparingly supplied with lymphatic vessels, will entertain the poison exudate, (even for the repetition of the membrane,) for a much longer time without danger to the circulating fluid.

The early swelling of the glands (cervical and sub-maxillary) with pain or buzzing noise in the ear, and impairment of hearing are ominous symptoms, warning us of the involvement of the nasal part, and the extension to the inner surface of the tympanum through the eustachian tube. We are informed by the best authority of the difficulty of diagnosis in nasal diphtheria. Oertel says: "It is only when the infection appears in the anterior parts of the nasal cavities, near the nostrils, on the septum, and the anterior surfaces of the turbinated bones, and false membranes develop there, that a diagnosis can be positively made by inspection." A patient of mine who died on the seventh day after the first noticed symptom was observed—"thought to be cold and stopping up of nose,") showed no visible exudate 'till the fourth day, when, by extension, it appeared on the posterior edges of the uvula and posterior pillars as a beautiful fringe upon a roseate border. The peculiar croupy sound has been referred to, and so has the very uncommon occurrence of the ery-

thema, resembling so closely scarlet rash that different writers warn us of the danger of making an erroneous diagnosis. This clinic peculiarity furnishes a plausible foundation for belief in the unity of the morbidic elements engendering the two diseases.

For want of time we must pass over the subject of paralysis which so often follows in some shape or other the affection.

A prominent symptom of peculiar interest is furnished in the feeble and intermittent pulse of patients apparently recovering, accompanied by pain at the pit of the stomach (Meigs & Pepper) and blowing systolic sound of tolerably high pitch attending the heart's action—indicative of heart-clot and great impoverishment of blood. The heart itself, lungs, pleura, kidneys, bowels, brain, spine and peripheral nerves are each liable to injury, which will have their individual concomitant symptoms.

In the treatment of diphtheria almost the whole *Materia Medica* has been appealed to, and hundreds of remedies have from time to time been proclaimed specifics. No disease shows in its history a wider field of therapeutic experimentation, and in results science has but little advantage of empiricism. Anti-phlogistics have been altogether abandoned. Locally, astringents and caustics are no longer relied upon. Generally and locally jermicide and disinfecting remedies are used, with tonics and stimulants. Chlorinated tincture of iron is generally used by all schools of medicine. Permanganate of potash and salicylic acid have strong advocates; lime in some of its various forms has been highly lauded. The fumes from unslaked lime with vinegar poured over it, inhaled, has been very serviceable in my experience in the nasal and croupal forms.

Whatever be the plan adopted or medicine used, much for success, will depend upon the tact and perseverance in the administration of remedies, and the skill and energy forthcoming in providing for emergencies, in observing symptoms, and guiding cases according to individual tendencies, and the character of their sequellæ.

In reference to sanitation, great efforts are being made, instituted by boards of health, to discover causes.

The idea is prominently stated with plausible proof in the annual report of Michigan Board of Health for the year 1877, that the use of water fouled by barn-yard matter is as certain to produce diphtheria, as that polluted by fecal or sewer poison will furnish typhoid fever.

But I opine that all these opinions founded upon conditions existing only in cities and their environs, and upon stock farms, fail to satisfy the scrutiny of science when policing for causes among mountain cabins, and valley huts void of even a hen roost, yet equally bereft of its darlings by the fell destroyer, diphtheria.

Reports of Societies.

ATLANTA ACADEMY OF MEDICINE.

J. G. WESTMORELAND, M.D., REPORTER.

ATLANTA, GA., Oct. 7, 1878.

Academy met, Dr. J. F. Alexander, President, in the chair.

Dr. J. G. Westmoreland reported a case of caruncle of the female meatus urinarius, which had been twice ineffectually removed by pinching it off with forceps. He proposes to clip it perfectly with scissors or the knife, and cauterize well the surface from which it is removed, with the hope of preventing a return of the tumor. This growth gives much suffering and inconvenience to females, and sometimes leads to very annoying reflex nervous symptoms.

Dr. Calhoun asked information in regard to the structure of such tumors, to which Dr. W. replied that they resembled very much the ordinary polypus, being very vascular and easily lacerated.

Dr. Scott thought the cauterization of the part from which the caruncle is removed, with nitrate of silver, is likely to lead to granulations, and is therefore not so desir-

able, for this purpose, as the fuming nitric acid or the acid nitrate of mercury, which lead to better results.

Dr. Wilson said he had removed a caruncle with scissors and cauterized with nitrate of silver, which resulted in apparent permanent cure up to the time he lost sight of the case some months after the operation.

Dr. J. F. Alexander mentioned a case in which several carunculous tumors were found scattered along in different portions of the urethra, giving very serious nervous symptoms. Their removal gave great relief to the patient, but owing to the failure to cauterize the points of attachment, the growths have returned, and with them the unpleasant nervous state. He proposes soon to remove them more effectually.

Dr. H. L. Wilson reported a case of stricture in the male urethra, in which uræmic poisoning followed an operation with Civeale's urethrotome. Three strictures were found to exist—one an inch or two from the meatus, one near the membranous portion and the other intermediate. The operation was performed, and the patient did well for several days, a bougie of considerable size being introduced daily. Finally the patient became negligent of reporting, and failed to pass the bougie to the bladder, and urine failed to pass, either from suppression or retention in the bladder, and with this failure to pass the urine, symptoms of uræmia made their appearance, such as stupor and delirium. His condition became decidedly alarming, but gave way to an abundant secretion and free discharge of urine.

ATLANTA, October 14, 1878.

The Academy met; Dr. J. F. Alexander, President, in the chair.

Dr. J. M. Johnson reported a case of dysmenorrhœa, with pseudo-membrane, which he said had been under the care of Dr. Battey, and was considered incurable. The case was turned over to Dr. Johnson while in an emaciated condition. In two or three months the patient improved in strength; in six months the false membrane ceased to pass at the menstrual period, as was her habit; in nine months

was married, and in twenty-three months bore a healthy child.

The treatment consisted of the internal use of bichloride of mercury in the form of tincture of anticrida, and muriate of ammonia in the dose of fifteen grains three times a day. The triple phosphites also composed part of the internal treatment. The local treatment consisted principally of the injection into the vagina of the muriated tincture of iron in the strength of one part to two of water. His opinion is, that the tincture is taken into the uterus from the vagina by a kind of suction, and makes its impression upon the internal surface, so as to change the condition of the intra-uterine surface.

On being interrogated in regard to the nature of the false membrane discharged at each monthly period, Dr. Johnson said, various authors have given opinions on the subject. Some conclude that it is nothing more nor less than mucous membrane, others that it is similar to the decidua, and others that it is the chorion. He is inclined to agree with those advocating the latter opinion.

Dr. Rauschenberg thinks the membrane discharged is nothing more nor less than a proliferation of the epithelial portion of the mucous membrane, and that this opinion is entertained by the best pathologists.

Dr. Scott agreed with Dr. Rauschenberg, that the membrane discharged is epithelial, and resembles the exfoliation of the external cuticle, and is analogous to the false membrane in croup. He can explain the treatment with mercury instituted by Dr. Johnson on this hypothesis: It is known that this remedy is effectual in membranous croup, and hence, for the pseudo-membrane in question.

Dr. Rauschenberg called attention to a case of leucæmia—a specimen of blood from whom was presented under the microscope, but owing to the imperfect light, he could not exhibit the appearance to-night, but hopes to be able to do so at the next meeting. The blood is found to contain only five per cent. of red corpuscles, compared with the white.

Dr. Calhoun reported a case of epithelial cancer between the lid and ball of the eye. The patient is thirty-five years

of age, and has had the disease for eighteen years. The disease extends now from the inner canthus along the upper lid, and also affecting the under lid. The ball was somewhat affected with the disease, and was completely concealed by the diseased and enlarged granulated lids. The rapid growth of the granulations is very marked, and he inquired of members having experience, what significance should be attached to this circumstance.

The treatment consists of the removal of the lids and ball entire.

Dr. W. F. Westmoreland reported a case of encephaloid cancer of the humerus, requiring amputation at the shoulder joint. The operation was performed after the use of Esmark's tourniquet, or the rubber bands. The arm was so completely deprived of blood that not a drop was lost in the operation. Even the knife, with which the operation was made, did not have the stain of blood upon it.

The specimen was exhibited, and was found to have commenced at the elbow joint, extending so near to the shoulder joint that the amputation below the joint was not considered likely to be effectual. The disease commenced eight or ten months since without any known cause.

The patient was anæmic from having resided in a malarious district, hence the care exercised to prevent any loss of blood. The operation being made under anæsthesia, no shock was communicated to the nervous system; and the freedom from loss of blood, leaving the circulation perfect, the patient was put to bed in an undisturbed state.

ATLANTA, Ga., Oct. 26, 1878.

Academy met; Dr. Todd, Vice-President, presiding.

On call for cases, Dr. Baird mentioned two of diphtheria occurring in his practice, which were especially prominent from the extensive membrane upon the posterior wall of the pharynx; other symptoms were those peculiar to ordinary cases of the disease. Used as a local application, concentrated chlorate of potash in solution, with muriated tincture of iron. A few days after seeing patients, he commenced with the use of the tincture of iron internally. Patients pulse being 130, he had used veratrum.

Dr. Scott recommended very highly a preparation of lime as a local applicant—using either warm lime-water through atomizer, or to be penciled on affected surfaces, or, as he would prefer, the fumes of lime while undergoing process of slaking. He stated that the fumes, especially, were quite soothing to the diseased surfaces, and besides possessed the property of dissolving the diphtheritic membranes, and disinfecting them so as to obviate poisoning of blood from their absorption. Lime also seemed to have the power of destroying the vegetable parasites, which latter, in the view of many pathologists, were the cause of the disease.

Dr. W. F. Westmoreland had known lime water inhalations to have a happy effect in cases of croup, but had had no experience with it in diphtheria.

Dr. Scott replied to an enquiry of Dr. Cumming, that his method was to place quick lime in a cup with a little water, and having formed a cone with a towel so as to envelop the cup and mouth and nose of the patient so as to cause the fumes to be readily inhaled; thought there was undoubtedly inhaled, in addition to the steam from water, the essential principles of the lime.

Dr. Baird, in reply to Dr. Cumming, as to his reasons for not giving tr. iron at commencement of disease, stated that he first endeavored to control frequency of heart's action by using cardiac sedatives, and then afterwards began using tr. iron.

Dr. W. F. Westmoreland, in reply to Dr. Todd, commences with the use of tr. iron immediately after clearing the bowels with a mild dose of calomel, both in diphtheria and erysipelas; thought cardiac sedatives were not indicated, unless excessive action was destroying the patient—for instance the pulse from 135 to 140 in the minute.

Dr. Todd mentioned having read a report by Dr. DaCosta of several cases of erysipelas occurring in the Pennsylvania Hospital, and from the long duration of these cases he had become impressed with the idea that they would have progressed more favorably had the use of tr. iron been preceded by some preparation of mercury—thought clearing of bowels had a happy effect as a forerunner in the treatment.

Dr. W. F. Westmoreland remarked that erysipelas occurred under various forms, and these were of variable duration; the phlegmonous or cellular form could not be arrested short of suppuration, and necessarily lasted weeks.

Dr. Todd inquired if Dr. W. F. Westmoreland placed any especial stress on albumen in urine?

Dr. W. F. Westmoreland does not lay much stress on albumen; where pus comes intimately in contact with vessels and there is no barrier to its absorption, as in phlegmonous variety, albumen was to be found in urine.

Dr. Baird recognizes the fact that where there is tendency to death by asthenia, cardiac sedatives were to be guardedly administered; but thinks that where the force or frequency of heart's action is such as to tend to rapidly wear out patient and produce alarming brain symptoms, preparations such as veratrum were surely indicated. This was the condition present in his cases above reported,—pulse being over 130 per minute.

Dr. W. F. Westmoreland presented tumor of parotid, of malignant character, which he had removed from a patient on Saturday last.

Some eight months previous, patient had presented himself with small tumor under ear, evidently growing from parotid gland; had at that time advised its removal, which could have been readily done, but was unable to obtain consent of patient.

This tumor had been in existence some ten or fifteen years, but had recently grown very rapidly indicating somewhat a malignant nature.

Being unable to dissuade patient from operation he finally yielded and removed tumor—size of fist, consisting of entire parotid gland.

This operation, when he was a student, was considered an impossibility—Dr. Gibson saying it could n't be done without ligating the common carotid or death of patient; soon afterwards Pancoast successfully executed it and presented specimen to Dr. Gibson demonstrating its feasibility.

In case under consideration, after exposing tumor he obviated hemorrhage from arterioles by a process of

tearing or hulling it out from its attachments, using finger-nail or a bone-knife; didn't ligate any vessels until tumor had been removed and recurrent or back-hemorrhage ensued.

Before beginning operation he had been unable to detect any pulsation in primitive carotid of affected side, and imagined it might be included in centre of tumor; this was afterwards found not to be the case; still even then he was unable by careful search to detect pulsation of the artery, and at the time thought he saw rudiments of an obliterated carotid. His present opinion is that this was an erroneous supposition, because of absence of all symptoms on the part of jugular vein and par vagum, which would necessarily have been more or less prominent during an action sufficient to have caused artery's obliteration. Waited an hour for reaction and ligated about twenty arterioles; profuse hemorrhage returning he used persulphate of iron and closed the wound, allowing however, no sponge to remain in wound on account of its tendency to rapid decomposition. Patient on morning following operation called for his breakfast at 7 o'clock, and there has been no unpleasant symptom up to date.

Dr. Connally inquired if Dr. Westmoreland regarded it as a malignant tumor.

Dr. Westmoreland said it was of malignant character; he had known tumors to exist for thirty years and finally all at once take on a malignant action.

Dr. Baird reported a case of tetanus in boy seven years old; ten days previous found patient with pain between shoulders, stiffness of the muscles and one side of face, giving rise to peculiar condition known as risus sardonicus, squinting of left eye, left leg stiff, screaming at night, and intense pain in abdomen, with spasmodic contractions of diaphragm.

Surmising worms, gave calomel and santonin—two gr. calomel three gr. santonin, repeated twice, and followed by castor oil, which caused several worms of the genus *ascarides vermicularis* to be passed; still the symptoms increased, until the least touch would throw him into tetanic spasms; indeed, about the sixth day from attack he would

have as many as fifty spasms nightly. And then began with hydrate of chloral and pot. brom. two to seven grs. combined, gradually increasing doses, and patient has continued improving up to present time—the frequency of spasms being reduced nearly one-half.

Dr. W. F. Westmoreland considers the case to be idiopathic tetanus, so called, though this was a misnomer and only an expression of our ignorance, and thinks boy will recover. If such a case can be controlled by anti-spasmodics, he should say it was not tetanus proper; has known in his own practice only two genuine cases to get well. Thinks chloroform may be given with impunity.

Dr. Scott remarked that he had given especial attention to the subject of traumatic tetanus, and had written an article based upon several *post mortems* held upon those dying in Langenbeck's clinic from that affection. These and other reported cases there, showed that in most cases the principal nerves leading from the injured parts were softened and swollen, together with more or less hyperæmia or an extravasation of blood within the neurilemma; these changes being the more marked and extending the higher up towards spinal cord the longer the affection had continued; in some cases the entire nerve up to its entrance into spinal cord was found affected.

Based upon these discoveries, he had in the above article recommended section, and, if deemed necessary, excision of a portion of the nerve trunk at a *point remote from the injury*, thus enabling us to cut off the central nervous system entirely from all irritating causes. He thought this should be done early, before the brain and spinal cord had become altered and excited to that point where peripheral irritation was no longer necessary to keep up spasms; stated the operation was easily executed, and without any danger to the life of the patient, and far preferable to amputation of the parts, as recommended by Larrey, Petit, and others—Petit having said amputation was a sure cure if done at once on the outbreak of the affection; could not believe with Dr. Westmoreland, that chloroform could be given with impunity in this affection; knew of a case where it was administered during the op-

eration for removal of foreign body with great relief to spasms, but on a second spasm ensuing it was again administered, and the patient died instantly; said it was well known that patients either died from exhaustion or from *spasm of the glottis*, and therefore chloroform was too risky a remedy; spoke highly of tracheotomy as a *dernier resort*.

Dr. W. F. Westmoreland has in some cases divided the nerves and soft parts surrounding the injury, and in one case saw benefit ensue; thinks death is caused by a falling back of epiglottis, rather than spasm of glottis, and recommends grasping of the tongue with forceps and pulling it forward. If not sufficient to relieve the symptoms, should perform tracheotomy. A year ago this little boy was stuck with a needle, which had as yet not been removed.

Dr. Lowe reminded the Academy of a case where a woman swallowed a paper of needles, some of which afterwards made their appearance under integument of abdomen.

Academy adjourned.

ATLANTA MEDICAL COLLEGE MEDICAL CLINIC.

SERVICE OF PROF. J. G. WESTMORELAND.

October 22, 1878.

Mrs. J—, white, æt. 42 years, the subject of dry tetter in the palmer surface of the right hand for two years.

Cases of this kind, gentlemen, are so frequently met with, and so difficult of permanent cure, that I think proper to invite your attention especially to their consideration.

In the first place, I ask you to note the length of time the disease has existed in this case, and to remember that this, like all other chronic affections, requires a longer or shorter period for permanent cure, according to its duration. It, being of two years' standing, will require several months of treatment to affect a cure. Abatement, and even complete temporary relief, may be afforded, as the patient reports to have been the case with her since the

attack, and yet regularly and certainly the difficulty will return. This reappearance must always be promptly met, until the disease is cured permanently. As to the pathology of this affection, there exists difference of opinion. While, perhaps, a majority of physicians treat it as purely a local disease, not a few seek, by arsenic and other means, to destroy an imaginary morbid agent keeping up the local disturbance. Some even go so far as to suppose the disease communicable by contagion, and advise caution in order to prevent contamination.

Notwithstanding these opinions, gentlemen, I shall consider it a local disease of the skin, caused by subjecting the hand to alkaline and saline solutions alternately with the coal drying atmosphere. By these influences a permanent irritation is kept up, preventing the formation of healthy cuticle.

The first step in the treatment is to discontinue the practice of frequently moistening the hand with saponaceous or other liquids, and exposure to the air. The desiccating effect of the latter can be avoided by having the palm constantly covered with some oily substance, or rubber gloves. In order to allay the long existing irritation I shall prescribe, as a local application:

R.—Iodide potassium,	. . . . .	gr.xl.
Iodine,	. . . . .	gr.xx.
Carbolic acid,	. . . . .	gr.xxx.
Water,	. . . . .	f3j.

Mix.

Apply to palm by saturated sponge or cloth once a day for a week, then once in two days.

Mrs. L——. white, æt. 30 years, the subject of painful nervous sensations about the chest and shoulders.

During the examination of this case gentlemen of the class doubtless observed the tenderness on pressure in the right hypochondrium, and also along the dorsal spine. You also remember the patient's statement, that position on the left side gives sensation of unpleasant dragging weight from the right. A hasty and only partial investigation of this case, a few days ago, revealed the nervous symptoms which were attributed to reflex impression

from some organic lesion, probably in the uterus. The investigation had to-day shows the absence of symptoms characteristic of uterine disturbance, and gives evidences of hepatic engorgement and irritation. The tenderness in the right upper portion of the abdomen, and the inability to lie on the left side prove conclusively this state of the liver. Finding no other organic trouble it is reasonable to conclude that the spinal irritation and consequent reflex painful symptoms about the shoulders and chest depend upon the hepatic lesion. The prescription of asafœtida internally, and sinapism over the dorsal spine, made a few days since, gave temporary relief from the reflex nervous suffering, as we have just learned from the patient. This prescription was not expected to prove permanently beneficial, but was made in order to give temporary relief until a more thorough investigation of the case could be had.

The treatment to-day will be directed to the primary disturbance, with the view of giving substantial and lasting benefit.

A blister of cantharides cerate, four by eight inches, is directed to be applied to the right hypochondrium, as the sole treatment at present. Mercury, which is, I think, too frequently resorted to in hepatic trouble, without regard to the nature of disturbance, is not justifiable in this case now. Excitement and irritation must be allayed, and it is irrational to expect such effect from a stimulant of the organ so affected.

After the engorgement has been relieved by the counter-irritant, a state of torpor may or may not exist, requiring the action of some mercurial preparation. If in the future progress of the case we shall find such necessity to arise the remedy will be given.

VOL. XVI.—No. 7—27.

Selections.

THE CAUSES OF ELEPHANTIASIS—A NEW TINEA.—We are supposed to prevent the coolie trade in American bottoms and patrol this part of the coast of China. Consequently we oscillate between this port and Swatow. We have not yet seen anything to prevent, and swelter in heat and discomfort for nothing. But, being at Ammoy so much, time has made me acquainted with Dr. Patrick **Manson**, the physician of the community. He, in common with Dr. Lewis, of India, and Dr. Bancroft, of Austria, has discovered and made known the existence of the *filaria sanguinis hominis*. Lewis and Bancroft knew of the parasite perhaps a few months before Manson did, but the latter not only discovered it in the blood of numerous patients, but further investigated and labored, and finally made known the complete life of the parasite. He discovered that the common mosquito is the intermediary host of the *filaria sanguinis hominis*. This parasite lives, or has its habitat, in the lymphatic vessels, its presence eventually disordering the functions and preventing the flow of the fluid; hence fulness of the distal vessels, hypertrophy and formation of the elephantoid tissue, a low-grade material, lymph scrotum, chyluria, etc., are effects due to it. I am quite convinced of the truth of these observations of Dr. Manson. I have seen young *filaria* time and time again in the blood of patients in the Chinese hospital here, and have noted any number of elephantoid and similar cases in connection, and thoroughly believe in it as cause and effect.

By this discovery elephantiasis is preventable. Where the mosquito flourishes most, and where there exists one case, any number of cases may occur. The mosquito gets the young *filaria* from man. It undergoes one stage of its life, or metamorphosis, in the mosquito's stomach. It is discharged with the young on water, and in that medium, or by it, infection occurs. Without the mosquito the *filaria sanguinis hominis* could not be matured. The adult

worm causes the mischief, such as elephantoid disease, chyluria, and lymph scrotum. Innumerable young in the blood cause a condition similar to ague, and which is treated similarly. The adult female worm only has been seen.

Dr. Manson has operated upon elephantiasis scroti ninety odd times, with two fatal cases, the tumors being of all sizes and consistence. He operates skilfully, first cutting down and isolating the testes, then clearing the penis, then taking away the mass with the catlin, dissecting up enough skin before doing so to cover the testes. A large sponge is pressed upon the bleeding surface, and the vessels are taken up and ligatured carefully. A drainage-tube in the form of an inverted U is put in, and catgut sutures are employed. Cotton saturated with carbolated oil is the dressing.

Enclosed I send you a pamphlet account of filaria immitis—the parasite inhabiting the heart of dogs in this country. It lives in the heart, and disturbs the action of the organ, and sometimes plugs up the pulmonary vessels. The comparative anatomy of the parasite is fully described in the pamphlet, but the full life of it is still unknown, and Dr. Manson is engaged in seeking it.

I would like to present the pamphlet to the Academy of Natural Sciences of Philadelphia, if you will be kind enough to do it. Dr. Leidy would possibly be interested in the matter. Dr. Manson has taken up many insects in hope of finding the intermediary host, but has not yet succeeded.

In the same pamphlet will be found some account of the original investigations and beginnings of Dr. Manson's work on the filaria sanguinis hominis; also an account of the filaria sanguinolenta, another parasite affecting the dog, but other organs and other tissues than the heart.

I consider these discoveries to be of vast interest and importance. The London *Lancet* has given some account of Dr. Manson's efforts from time to time. Dr. Cobbold knew the results from him.

A new variety of tinea is also being distinguished by

Dr. Manson. It differs from the *T. circinata* in every particular, clinically and pathologically. The case is from the Straits settlements, and has been known as a ringworm, the local name given it where it occurs, Burmese ringworm, etc. It affects the skin and produces a condition similar to watered silk, one ring within another, and no part healing as the growth progresses. The epidermis is raised up in flakes, rises, and is detached in larger patches than in *T. circinata*. Microscopically, the difference consists in there being few spores, much large-sized and long-pointed mycelium. The whole body becomes gradually affected, no part healing as in *cercinata*. Dr. Tilbury Fox, of London, is to be written to in regard to it, and will present the cases and notes for Dr. Manson.

Leprosy is common in this part of China, and thus far no remedy, in the true sense of the word, is known here. It is not considered contagious, and no measures of precaution are taken beyond avoidance of contact. Marriage of lepers is not prevented; and women affected not unfrequently beguile men in the common notion of transferring it.

I hope you may get some notion from this of the filaria parasite and the important work done by a physician in busy practice with limited means and poor instruments of research.—*Philadelphia Medical Times*.

IRRITABLE TESTIS.—Despite the statement to that effect in a recent and very valuable work on genito-urinary diseases, I doubt if surgeons who have treated many cases of this affection will concur in denominating it a species of neuralgia of the gland. The excessive sensitiveness of the organ is shown by the agony which the most careful contact, or the most insignificant shock will induce. Sometimes this morbid sensitiveness exists all over the gland; again, it is only one spot that is affected. In the case of the patient whose history I desire to allude to in this connection, the whole left testicle at first seemed to be morbidly irritable and hypersensitive; on more careful manipulation it was found that the organ could be handled without exciting pain, provided the observer was careful

to avoid touching the globus major, part of the body of the epididymis and a small section of the gland adjacent to those parts. When the patient walked along the street, and a fold of his clothing came against the above enumerated parts, the agony excited would be almost unendurable. His sufferings came on gradually. One morning in January, 1877, this patient noticed that his left testicle seemed unusually sensitive. It gradually grew worse, and a month afterward he was in much the same condition as when he came under my observation, in August, 1877. At that time he wore an anxious, worn and broken appearance, which would attract attention anywhere, and he informed me that for several weeks he had been utterly incapacitated for either mental or physical labor. He could ascribe no cause for the development of the disease; he assured me that he was a man of chaste habits and moral life, and that he neither abused his genital organs nor subjected himself to such temptations as would excite his animal propensities. He mentioned falling down stairs in December, 1876, and striking the lower part of his abdomen against a footstool, but did not think the accident could have contributed to the development of his disease. The testicle was neither swollen nor unduly congested, and there were no local indications of disease other than the great sensitiveness of the parts already enumerated. The local treatment prescribed at first did the patient no good, and when he came to town for further advice, in October, he was greatly discouraged. He then told me that he had been under the care of several physicians since January; that none of them had done him any good; in fact, he believed he was worse at that time than he had been for months. One particular symptom, he remarked, of late development, caused him an amount of distress that was simply inconceivable. For instance, when gas was generated in his bowels, and passed into the large intestine, if he made an attempt to prevent its immediate discharge by contracting the muscles of the rectum, the same sensation was felt in the testicle as if that organ had been suddenly and forcibly compressed. On this account he had latterly avoided all society.

My attention having been attracted to this last symptom, more, perhaps, from my inability to explain it, than from any other reason, I finally determined to make a rectal examination. The patient readily assented to this, and bore all my manipulations unflinchingly until I endeavored to test the sensibility of the parts above the upper margin of the base of the prostate; as soon as I brought my finger in contact with the anterior wall of the rectum the patient screamed with pain, and I had to conclude my investigation at once. This distress was located in the left testicle. On my asking the question directly, he said he believed that there was pain at the base of the bladder, which radiated down the left spermatic cord, but his answer was so manifestly suggested by my question that I placed no reliance upon it. After thinking the matter over, I explained to him my reasons for believing that counter-irritation over the base of the prostate and the region of the vesiculæ seminales would do him good, and obtained his consent to that plan of treatment. He had such a horror of a digital exploration of that region that I placed him in the knee-chest position necessary for the introduction of Sims' speculum, and in lieu of the latter, used Kramer's ear speculum. Upon separating the blades of the latter when introduced sufficiently far to include the internal sphincter, I found the anterior wall of the rectum completely distended, and had no trouble in applying vesicating collodion over the whole region corresponding with the prostate and vesiculæ seminales. After keeping the parts exposed to the air until the collodion dried, I withdrew the speculum, after placing in contact with the visicant a wad of cotton saturated with glycerine. In an hour after the application was made, the patient took passage on an Ohio river boat, for his home, near Cincinnati, promising to return in a week or ten days. At the expiration of the appointed time, I received a letter from this gentleman, in which he said that his progress had been "splendid," and that circumstances were such that he could not visit me before the first of December. During the first week of December I met him on one of the river boats, in compliance with the request he

telegraphed me. He said that he noticed nothing unusual for several hours after I applied the collodion to the rectal aspect of his genito-urinary organs; then a sensation of smarting and burning was developed, and caused him great apprehension. This kept him uneasy for two days; accident then led him to discover that his testicle was no longer so sensitive as formerly. When his bowels moved, he suffered a little, but he experienced no pain in his testicle. In short, in a week from the day the application was made to the rectum the morbid sensibility of his testicles had completely subsided, and in July, 1878, he told me there had been no return of the trouble.

While one case proves but little, there can be no objection to quoting the foregoing as an illustration of the efficacy of counter-irritation in a case of irritable testis, in which the probabilities are that the disease was of traumatic origin. Far more important than the question of the cure of this case by local applications to the rectal aspect of the genito urinary organs, is the point illustrated by the method of treatment. The same principle which permits the surgeon to heal the diseases of the uterus under sight is equally available in the treatment of diseases of the lower bowel in both sexes, and bids fair to prove of great service in the prevention and cure of an important class of genito-urinary affections in men. Counter-irritation in the same way described in the foregoing case has relieved five patients with disease of the prostate gland during the past three months. The application of vesicating collodion has likewise proved efficacious in preventing epididymitis in two cases with urethritis, who were threatened with swelling of testicle a few weeks since.—*Medical and Surgical Reporter.*

CONSULTATION WITH HOMŒOPATHS AND THE USE OF THEIR MEDICINES.—We publish herewith a note from Dr. Geo. E. Robertson, of Platteville, Wis. It is scarcely necessary to remark in connection with it that the doctor's righteous indignation against a false system has prevented him from fully appreciating the remarks made on the subject by us:

“It is very astonishing and somewhat annoying to see

intelligent, well educated physicians, who must see the vast strides medical science has been making for centuries, from the investigations of the most gigantic minds in all nations, pandering to an absurdity greater than witchcraft—a so-called system of medicine, promulgated by a visionary, disappointed individual, who fell a victim to his theory; a system that would abnegate the whole medical science, and leave it in a worse condition than Hipocrates found it thousand of years ago.

“A very learned physician has said, ‘if a regular physician of the old school advocates homœopathy, he is either a fool or a knave.’ I can see no possible objection in our consulting with eclectics. They have no theory differing from ours; they repudiate a few drugs, and think that they have substitutes less dangerous to produce the same effect. We really owe them thanks for their investigation of many medicinal plants we all admit to be valuable. The Thomsonians, with all their ignorance, occasionally did good with a great deal of harm; but they were honest enough to practice what they believed, and the whole system has passed away like a vapor. Hydropathy, in intelligent physicians’ hands, in some cases is an admirable remedy. If an ignorant negro, a Hottentot, or an Indian was to satisfy my judgment that he possessed an efficient remedy, I would use it. But the doctrine of Hahnemann has no more to sustain it than witchcraft, or the touch of the seventh son. You state that ‘not one in a thousand adheres to the dogma of Hahnemann.’ I admit it. Then they are dishonest, and unfit to consult with; and their medicines, by Hahnemann and his followers’ stand-point would avail nothing. Consequently nothing could be gained from either consultation or medicines. If they claim to be homœopaths and practice allopathy, is it not evident that their object is to mislead the people? The honest, intelligent physician needs no such double dealing. If his patient needs no medicine, he will give none; if he needs small doses, he will give them; if his case requires heroic remedies, he will use them. If the homœopaths have seen the ridiculousness of their doctrine, and wish to be recognized as medical men, let them comply with the requisitions, and we will admit them.”

Editorial.

QUARANTINE.—We take great pleasure in publishing, as will be found below, resolutions passed by the Medical Society of South Carolina, and the communication of its Secretary, asking for them a place in our journal. We have, for two years past, labored to promote the objects sought in the resolutions passed by our brethren of the Palmetto State. Opinions touching the subject of quarantining against yellow fever, coming from scientific and closely observing physicians in a city like Charleston, where the disease prevails, and where it may be so thoroughly studied in all its relations, are worth more than all the theories that have ever been promulgated.

As the resolutions justly intimate, humanity demands the abrogation of rules and laws which, without compensating good to the public or individuals, embarrass commerce, interrupt mail facilities, and otherwise interfere with the dearest interests of social life. Quarantine laws against yellow fever do this and more. To their observance, the public have long been taught to look for security against the ravages of the disease, and this leads to the utter neglect of the only means of protection—sanitary measures at home.

It is due the public, that errors on this subject, for which the medical profession is to a large extent responsible, should be corrected by members of that profession. The facts accumulated by the late Dr. Arnold and Dr. LeHardy, of Savannah, and the eminent physicians of Charleston, and other places, should be made known to others than readers of medical journals; and while for our pages we seek practical facts and common-sense views on this subject, we hope other avenues may also be sought, through which to correct public opinion.

Action of the Medical Society of South Carolina.—At the regular monthly meeting of the Medical Society of South Carolina, held September 2d, 1878, the following resolutions, offered by Dr. R. A. Kinloch, were adopted and ordered to be published:

Resolved, That we witness with surprise and mortification the attempt, on the part of the citizens of many sections of our country, to institute a futile and oppressive system of *land quarantine* against yellow fever.

2d. That this system, originating, as we believe, with a panic-stricken people, and supported by the teachings of theorists, is inconsistent with the most generally received views as to the origin and propagation of the disease in question, and opposed to the humanity of a civilized age.

3d. That we respectfully urge upon the profession, throughout the length and breadth of our land, the necessity of opposing this false and inhuman doctrine by every means in their power, even, if necessary, by an earnest appeal for legislative enactments on the subject.

4th. That we respectfully, but most urgently, advise our fellow-citizens of those localities, when an invasion of the disease may seem imminent, to expend all their efforts rather in the removal of those causes, which, in accordance with the well-established facts of modern science, are known to be potent in localizing epidemic disease.

5th. That we extend our most heart-felt sympathy to our fellow-citizens who are now feeling the dire effects of the illegal and inhuman enactments referred to, and we pledge ourselves to do what we can in our own State, to aid in their deliverance, and to provide for their future security.

A true copy.

W. H. BAILEY, M.D.,
Sec. Med. Soc. S. C.

CHARLESTON, September 15, 1878.

To the Editors of the Atlanta Medical Journal:

GENTLEMEN—In accordance with instructions from the Medical Society of South Carolina, the foregoing resolutions are forwarded to you with the request that they be inserted in the next number of your valuable journal. Similar copies have been furnished to other prominent medical journals of the South and West.

I am, very respectfully, your obedient serv't,

W. H. BAILEY, M. D.,
Sec. Med. Soc. S. C.

CEREBRO-SPINAL MENINGITIS.—In the transactions for 1873 of the Medical Association of Georgia will be found a report made by the Editor of this journal, on meningitis. Views of its nature and pathology, with cases and their treatment are there recorded. Observation of the disease had forcibly impressed the author with the belief of its highly inflammatory character, and, in consequence, active and decidedly antiphlogistic treatment was instituted in every case. These cases took large doses of calomel, and whether the circulation and nervous energies were feeble or active, all were bled, and most of them copiously.

The rate of mortality in these cases, compared favorably with those occurring about the same time in the city, and subjected to tonic treatment. I think the good of mankind, and not egotism, prompts me to say, that under quinine and other tonic treatment seventy-five per cent. fell, and not more than twenty per cent. died under general active blood-letting. This opinion is based on the reports made from time to time by physicians of Atlanta who practiced the supporting plan.

The disease has only occasionally been met with here, since that time, and therefore an opportunity has not been afforded to verify the statistics of 1872-3.

We give below the letter of our esteemed correspondent whose views of the pathology and treatment of meningitis has before appeared in this journal. Discussion on this subject *pro* and *con* will be freely admitted into the journal, for the benefit of mankind.

NACCOOCHEE, GA., Oct. 25th, 1878.

DR. J. G. WESTMORELAND,

My Dear Sir:—In the May No. of your journal, for last year, you published a note addressed to you, by me, upon the subject of meningitis.

This note was induced by some remarks of your own in a previous number upon the same subject; a subject, than which, there are few of greater interest and importance.

I have been hoping since that to see something more from your pen on the same theme, for I believe you inti-

mated then that you would favor your readers with another paper. Recently I have observed something from another source, which I regard as confirmatory of views formerly expressed.

In the department of analytical and bibliographical notices, of the *American Journal of Medical Sciences*, for October 1878, under the head of, the Transactions of the Mississippi Society, the following occurs:

"Dr. E. W. Hughs describes a terrible epidemic of cerebro-spinal meningitis, which prevailed among negroes employed upon the fortifications around Grenada in the fall and winter of 1862 and 1863. Usually without warning, the patients were seized with chill, intense headache, with pain and stiffness at back of neck, followed irregularly by intermittent fever, vertigo, intolerance of light, sound and touch. Delirium and coma were common, with variable affection of the pupils, deafness, irregular and oppressed breathing and many other symptoms of profound poisoning of the nervous centres. Pain in the head and neck, retraction of the head and stiffness of the muscles of the posterior cervical region were the pathognomonic symptoms. * *

The malady was deemed one of depressed vitality, and quinia, opium, iron, and stimulants were given, but all the patients died. Autopsies revealed intense congestion of the membranes and sinuses of the brain. * * *

Antiphlogistic treatment was then tried—venesection, cups, and cold applications, with full doses of calomel, and Dover's powder. From this change of treatment it is claimed that about one-half the cases were saved. Success depended upon the promptness of the first measures."

Of course, in acute meningitis, remedies—treatment—to be efficient, must be prompt. Hence a plea for venesection; nothing can be so certainly prompt. This when opportunely used will make time for other means. All must admit, that in the above narrative the difference between "all" and "one half" is very striking.

Permit me to say in passing, that I was pleased with your remarks, critical, appended to an article in the September number. In as much as the article found place in

its pages, the criticism was timely, appropriate and called for.

I hope the time will not come when the ATLANTA JOURNAL shall be unable to teach a wiser medical philosophy than that contained in the article alluded to.

Yours truly,
E. F. STARR.

ATLANTA MEDICAL COLLEGE.—The opening of this Institution was had on the 15th inst. by the introductory of Prof. Banks, in which sound, practical precepts were laid before the class.

The session commences with an unusually large attendance, and with the manifestation of more than usual zeal on the part of professors and students.

The stringency in financial matters and great distress in neighboring Western States from the scourge, were expected to interfere with an early attendance, and has no doubt delayed some who will yet swell the class.

We have not heard from other Medical Colleges, but hope cool weather will soon restore health to the cities which have so badly suffered, and that the Colleges at those places will soon be opened for teaching.

EUROPEAN CORRESPONDENCE.

PARIS, FRANCE, 6th September, 1878.

Attending a demonstration on the analysis of urine recently, I was impressed with the clumsiness of the methods employed to determine the albumen. While the sugar is easily determined by the copper precipitated, the uric acid by the nitrogen evolved, the process used for the albumen is so tedious and troublesome that, beyond the bare fact of the presence or absence of albumen, that important element receives but little notice at the hands of the practitioner. The means I have habitually employed is simple and expeditious—so much so that if the albumen is the first element sought for, the analysis will be finished and the result can be ascertained by the time the other researches are completed.

The albumen is precipitated from a measured quantity of filtered urine, in the usual way, and thrown on a filter, the weight of the ash of which has been ascertained. If greater accuracy is desired, the albumen is to be washed with distilled water. As soon as the fluid has passed through, the filter is folded together and pressed between folds of blotting paper, which hasten the process somewhat, but is not essential. The drying can also be hastened by washing with alcohol and ether. The filter, with the albumen either dry or damp, as the case may be, is next placed in a tube crucible capsule, closed so as to exclude the air, and heated to redness, then cooled and weighed. From the total weight subtract the weight of the vessel and the weight of the ash of the filter; the remainder will be the carbon of the albumen, from which the albumen may be readily calculated.

I spoke, some time since, of the practice now so fashionable among syphilographers, of waiting for the appearance of constitutional symptoms before administering internal remedies—a practice which rests a good deal, perhaps, upon the theories of Ricord. A great part of the measures adopted by physicians, are used with the intention of averting anticipated evils which might or might not occur. Quinine is often given, not for the chill a patient had yesterday, nor for the fever he had this morning, but to prevent the symptoms anticipated to-morrow or next day, and the removal of a diseased eye is advised to prevent a possible injury to the sound one, yet who can say positively that either of these contingencies would occur? The expectant syphilographer asks defiantly if a case can be pointed out in which the early use of mercury prevented secondary symptoms. He asks an unanswerable question, and plumes himself accordingly, but this much can be said in reply: Every physician of experience has seen cases of chancre in which mercury was given, and in which secondary symptoms did not occur during the life of the patient. Certainly the practice seems to me not unlike deferring vaccination until the patient is attacked with small-pox. And, again, it is past comprehension to understand how a remedy should be unable to destroy a

few germs, but should become all-powerful when these have multiplied indefinitely. But to a case in point. A patient appears before a physician having upon the outside of the penis a small scab having all the appearance of a herpes. There was no swelling of glands, nor other symptoms of syphilis; the physician diagnosed a case of herpes, and advised treatment accordingly, but added that even if it was a case of syphilis, he would advise waiting until constitutional symptoms would manifest themselves before giving minerals. Now, what was the result? The case turned out to be syphilis, with severe constitutional symptoms.

Pathologists agree that it is impossible to distinguish between a herpes and some of the earlier forms of syphilis; but I would go a step further, and indicate the existence of a communicable syphilitic herpes, which may vary its course according to the diathesis of the individual affected; but which, in its early stages, is not distinguishable from non-syphilitic herpes.

I saw the case in question, and while stating candidly the fact that an accurate diagnosis was impossible, I was inclined to look upon the case as sufficiently suspicious to warrant constitutional treatment if he had been my patient; the physician subsequently consulted took, however, a different view of the case and its treatment, and as I am not engaged in practice here, I had no tangible objections to offer—it was simply a question of opinion and experience.

But here comes in the question of diathesis, that undefinable, ever-varying condition of the system which causes one person to be more susceptible to a particular disease than another, and changes the degree of susceptibility at different periods of the life of the same individual. It is this uncertain element, this ever-changing factor, which prevents the application of logical rules to medicine with anything like certainty of results; ignoring this, the practitioner becomes a mere routinist, the medical teacher, a dogmatist. It follows that the opinions based upon the observations made in the practice of one or a dozen physicians may be absolutely valueless when applied to the

patients attended by another. It follows that all these medical authorities should be regarded as suggestive only, and not as indicating a rigid rule of practice. Among the curiosities of syphilis, recently brought to my notice, were three cases inoculated by the same woman on the same night, treated in the same hospital by the same physician and similar medication (mercurial); of these, the first had secondary symptoms, but was cured (?) without accident; the second had no other symptom than the chancre, while the third died.

At the meeting of the British Medical Association last year, I was forcibly struck with the tendency of teachers to become dogmatists. A paper had just been read on the introduction of the hand into a subinvolted uterus some days after delivery to extract an adherent piece of placenta which was causing hemorrhage. During the discussion which followed, a prominent professor stated it to be a most dangerous practice to introduce the hand into the uterus after delivery, modestly adding, "among the class of patients attended by himself." Now, it happens that my experience is altogether different, for among those patients attended by me, it has always been my rule—not invariable, of course—to introduce the hand as soon as possible after delivery of the child, and then retain it until it was expelled with the secundines. I thus avoid irregular contractions and retained clots, and consequently diminish the after-pains to a considerable extent; furthermore, the introduction of the hand at this time gives little or no pain to the patient, as the external parts have not yet contracted or tumefied. I only mention this to show that what might be proved by experience—after all the only real medical teacher—to be good practice in Savannah, might not suit in the crowded population of an English city. The surgery, which might be very successful on the dry table lands of Mexico, might be most disastrous in the damp climate of England.

In the treatment of stricture of the urethra, I find practice pretty well divided, some rupturing, some incising, some galvanizing and some gradually dilating. On the whole, I think the two latter methods have the preference in private practice.

In the gynecological clinic of M. Trippier, the other day, he drew attention to the extraordinary prevalence of hepatic diathesis among the Russians and scrofula among the Israelites. Certainly, I think this assertion will not be borne out by observation in our section of country, and I am quite sure that my personal experience is quite opposed to this, as far, at least, as the Hebrews are concerned. M. Trippier appears to look upon diathesis as the great predisposing cause to uterine complications, while M. Chum advocates the nervous origin of these disorders. Of course the result is a wide diversity of practice, the practical results of which must be looked for in the works of the observers in question, as, of course, the comparative success must be the result of years of observation.

Among the curiosities of the exhibition is the new metal Gallium, discovered by M. Lecoq de Boisbaudran, but of its properties I have no accurate knowledge.

As an excipient for intra-uterine medication, I find soup is a good deal employed, but I do not think it is as good as the calloids, (the vegetable gums, or the gelatines,) which can be made of any consistency desired by the addition of glycerine, and hence the practitioner has it in his power to keep the parts bathed, as it were, with medicament, for as long or as short an interval as he chooses. For years I have employed this method of applying remedies to the uterus, vagina, rectum, etc., with satisfactory results, and I would suggest the medicated calloids as an excellent mode of internal medication.

It is often desirable to apply remedies to the os for some hours at a time without permitting them to come in contact with the vaginal walls. This end can, to a great extent, be attained by the use of a thin india-rubber sack, attached to an india-rubber ring. The ring encloses the *col* which protrudes, within the sack in which is placed the dressing desired.

A modification in the canulas used for vaginal injection, upon which I always insist, is to have the end hole closed entirely, and the direction of the other changed so as to give a reversed current, discharging towards the exterior instead of the interior. This little change was the

result of three or four severe cases of colic and subsequent inflammation, occasioned by the entrance of the injection into the uterine cavity.

One of the most instructive and entertaining of Parisian clinics, is that of Dr. Ch. Fauvel, for diseases of the larynx, whose "Practical Treatise on Diseases of the Larynx, preceded by a complete Treatise on the Laryngoscope," will probably be the most complete and exhaustive work on the subject extant. The first volume, of 900 pages, is already published, and is in itself a complete treatise, embracing the history of laryngoscopy, a description of the necessary apparatus, methods of examination and treatment, which take up the first part—rather more than one-sixth the volume—while the remainder is occupied with the discussion of laryngeal tumors, polypi, cancers and catarrh.

The work contains notices of 300 cases of tumors of the larynx, which have come under the author's notice. Of these, 233 were operated on, and the results obtained were 180 cures, 48 improved, and 5 unbenefitted. The value of laryngoscopy may be estimated from these figures. Not many years ago death by suffocation, or tracheotomy, would have been the end of these cases.

The chapters on cancer are a valuable addition to medical literature, as heretofore there are but few cases recorded of primary cancer of the larynx. The left side is more frequently the seat of this disease than the right, in the proportion of 26 to 7, and from forty years of age to seventy, is the period most liable to be attacked. Thirty-four men were affected with cancer of the larynx, and but three women, which, Dr. Fauvel suggests, may be owing to the localization of the disease in the mamma or uterus of the latter.

An important point in the diagnostic differences between cancer and laryngeal phthisis is, that in the former, the voice is seldom completely destroyed, while in the latter articulation is often absolutely impossible; and cancerous patients are always submitted to an anti-syphilitic treatment, so great is the difficulty of distinguishing between laryngeal cancer and syphilis. The danger of

neglecting laryngeal growths—although apparently stationary, is pointed out as leading to sudden attacks of suffocation, from their rapid development. The operation of thyrotomy is strongly condemned as being useless and dangerous from hemorrhage; in one case thirty-eight ligatures had to be employed. A point of practical importance is well made, which is, that all solutions should be applied during expiration, thus avoiding spasm.

Since the invention of the laryngoscope no such work as this has been published on the subject, and certainly no laryngoscopist, who desires to be fully informed on the subject with which he is dealing, can afford to be without it.

To the casual medical traveler, Paris, for the past month or two, has been most uninteresting. All the "cliniques" at the hospitals have been suspended for the vacation; and the professors are mostly rustivating; so that unless for persons, who like myself, are engaged in making special observations and investigations at private cliniques, and with private professors, there is really nothing to be seen; this is the case even in surgery; for all operations that can possibly be deferred will be put off until the course of winter teaching begins.

R. J. NUNN.

BIBLIOGRAPHICAL.

PRINCIPLES AND PRACTICE OF SURGERY, BEING A TREATISE ON SURGICAL DISEASES AND INJURIES. By D. Hayes Agnew, M.D., LL.D., Professor of Surgery in the Medical Department of the University of Pennsylvania. Profusely illustrated, in two volumes. Philadelphia: J. B. Lippincott & Co. London: 16 Southampton street, Covent Garden. 1878.

The first volume of this work has just been received from the publishers at Philadelphia, and, we suppose, will be followed by the second volume so soon as it is issued from the press.

The volume before us contains about 1,040 pages, and, from the cursory examination we have been able to give it, appears to be so arranged and illustrated as to give the

greatest advantages in the study and practice of the science and art of surgery.

We shall take pleasure in giving a more extended notice of the work when both volumes are published.

ANATOMY, DESCRIPTIVE AND SURGICAL. By Henry Gray, F.R.S., Fellow of the Royal College of Surgeons, and Lecturer on Anatomy at St. George's Hospital Medical School. With five hundred and twenty-two engravings on wood. The drawings by H. V. Carter, M.D., and Dr. Westmacott. The dissections jointly by the author and Dr. Carter. With an Introduction on General Anatomy and Development. By T. Holmes, M. A. Cantab, Surgeon to St. George's Hospital. A new American, from the eighth and enlarged English, edition. To which is added, Landmarks, Medical and Surgical. By Luther Holden, F.R.C.S., Surgeon to St. Bartholomew's and the Foundling Hospital. Philadelphia: Henry C. Lea. 1878.

Gray's Anatomy has become a leading text-book in Medical Colleges, and this new American edition will doubtless be sought by learners.

THE ANTAGONISM OF THERAPEUTIC AGENTS, AND WHAT IT TEACHES. The essay to which was awarded the Fothergillian gold medal of the Medical Society of London, for 1878. By J. Milner Fothergill, M. D., Edin., member of the Royal College of Physicians, London, etc., etc. Philadelphia: Henry C. Lea. 1878.

This little volume of 160 pages gives the antagonism of certain toxic agents, from experiments on lower animals, and will be found a useful little book for the practicing physician.

EXCERPTA.

A CASE OF TRANSFUSION.—The patient was suffering from biliary colic, and during the passage of a calculus an intestinal vessel was ruptured. The treatment was the usual one adopted in biliary colic, with the addition of remedies directed to the suppression of the hemorrhage, which was controlled at the end of the second day—fully two quarts having been passed “per rectum,” and a comparatively small quantity vomited. Two weeks later hemorrhage again occurred. More than a quart of clots,

presenting perfect casts of the intestines, were passed at once. The next day another large quantity of blood and another perfect cast, measuring thirty-six inches. The patient was now fast sinking; extremities cold and bloodless. The doctor now (March 27th) determined upon the transfusion of blood. No pulse could be felt at the wrist, and the heart was beating 155. Veins would not fill when the arm was ligated; 4 oz. of defibrinated human blood was transfused, and at the conclusion of the operation the pulse beat 115; the face and fingers showed marked color, and the patient expressed himself as better. Convalescence has been slow and irregular, but without returning colic or hemorrhage, and is now considered perfect.—*N. Y. Medical and Surgical Brief.*

A NEW TREATMENT OF TAPEWORM.—From the results of numerous experiments, M. Bouchut had ascertained that not only ascarides, but fragments of *tænia*, when placed in a weak alcoholic solution containing one thirty-fifth of amylaceous pepsine, are digested by the fluid in the course of twelve hours. We thus obtain an artificial digestion of the animal matter exactly similar to that which ensues when meat is treated by the same process. On submitting the conclusion drawn from his experiments to the test of practice at the *Enfants Malades*, M. Bouchut found that the solution of pepsine was eminently successful. If his experience be confirmed, a valuable addition will be made to adult as well as infantile therapeutics. In conclusion, we may observe that animal food is, almost certainly, the channel through which the parasite is conveyed; and hence that official inspection of suspected dealers in meat would form a useful adjunct to the practice of the physician.—*Louisville Medical News.*

THERAPEUTIC VALUE OF NITRATE OF LEAD.—The late Dr. Madison Marsh, of Louisiana, a few years ago urged upon the profession, through the columns of this journal, the very great value of the nitrate of lead in many skin affections and superficial erosions. Some recent observations of an Italian physician, Dr. Galletti, add fur-

ther evidence on this point. This writer states that he has recently effected a cure in three cases of epithelioma, in one of which the part affected was the nose, in a second the cheek, and the third the sternum. The mode in which he applied the remedy was by dusting the powder over the affected part, and recovery took place when this had been done about four times. Two obstinate ulcers of the foot, which had proved rebellious to other methods, quickly recovered under the same treatment. Dr. Vanzetti has recently recommended the use of the nitrate of lead in onychia maligna.—*Med. & Surg. Rep.*, August 10, 1878.

SKIN GRAFTING IN THE COLORED RACES.—A French naval surgeon, Dr. Maurel, stated at a scientific meeting in Paris, that during a two years' residence in Guiana, he had made numerous experiments on epidermic transplantation, placing the graft on persons of different race and color. He found that not only did the graft take well, whatever description of transplantation was made—whether transported from the skin of a black to that of a white, or the reverse—but that there always remained a whitish line at the point of junction, wherein pigmentation was not produced. The pigment disappeared from a black to a white person; but when the two individuals were highly colored, the graft remained black, except at the point of the cicatrization.—*Med. & Surg. Rep.*, August 10, 1878.

SKIN-GRAFTING.—M. Maurel (*Le Progres Medical*, 29 juin, 1878) has performed skin-grafting on people of the white, yellow and black races. The operation succeeded in all, but on account of the thickness in the derma, it is rather difficult to perform in the negro. Hetero-grafting (grafts taken from one race to another) has given interesting results. Their efficiency in the cure of wounds and ulcers is undoubted. The pigment disappears from the graft taken from a black and implanted upon a white person; This does not hold good for Negroes and Hindoos. When both subjects are strongly pigmented, the graft remains colored, and even by a sort of contact action, pigment is

reproduced in the cicatrix in a very narrow zone surrounding the graft, outside of which the cicatrix is white, as is always the case in Negroes after large losses of substance. —*St. Louis Record*.

TREATMENT OF CANCER BY BROMINE.—Dr. Novaro, in the *Giornale della Accademia de Foirino*, speaks of scarification and the cauterization of cancer by bromine, as much more successful than any other treatment. As results he states that—

1. It produces a temporary, if not a permanent, cure of cancerous tumors, with less loss of substance than the knife or actual cautery.
2. This treatment can be applied to the neck of the uterus better than the knife or burning iron.
3. That scarification produces but little hemorrhage.
4. That the peritoneum can be touched without fear of grave inflammation, in which Simon coincides.

BROMIDE OF POTASSIUM EXTERNALLY AS A CAUSTIC AND HÆMOSTATIC.—Drs. Ferraud and N. Guenean de Mussy (according to *Le Moniteur Therapeutique*) have used bromide of potassium with glycerin in many diseases to relieve local spasms, pruritus, etc. In twenty days, an epithelioma of the face was cured by a daily application of the medicine in powder. They have likewise obtained good results in chronic ulcers of the legs, in diseases of the skin, such as chronic eczema, pityriasis and acne, in stomatitis, and in some phagadenic ulcers. In epistaxis, hæmoptysis and menorrhagias, they found it successful after ergot, perchloride of iron and rhatany had failed.

CATALEPSY PRODUCED BY A HAIR.—A child in Paris, one year old, in whom no organic disease or other pathological condition could be discovered, was observed for several weeks to have tonic spasms. One day its mother discovered and removed a hair, the end of which was projecting between the two front incisor teeth. This hair, 90 ctm. in length, extended backward, probably into the larynx, its irritation there probably giving rise to the attacks. The disease never returned after its removal.—*Allg. Med. Cent.-Ztg.* No. 68, 1878.

TREATMENT OF DIABETES BY SALICIN.—Dr. Augustus Muller publishes his treatment of diabetes by salicin and salicylic acid compounds, and concludes—

1. That salicylate of soda can stop the symptoms of diabetes, but the relief is only for a time.
2. That said symptoms disappear much more rapidly with large doses, as 14 to 16 grammes of salicin.
3. That when intoxication is noticed, the medicine should be stopped.
4. That salicylate of soda slightly affects the kidneys, even in large doses.

HAY FEVER.—(*White Mountain Echo*, Sept. 7.) At a meeting of the United States Hay Fever Association, (composed of hay fever victims,) held the last Monday in August, at Bethlehem, N. H., a letter was received from Dr. R. Woodward, of Worcester, Mass., which disproves the hypothesis that the disease is essentially due to the effect of the pollen of plants upon the mucous membranes of the air-passages, and lends support to Dr. George M. Beard's theory that it is a disease of the nervous system. Dr. Woodward kept the pollen of rag-weed, Indian corn, golden rod, and other plants accused of producing hay fever, in his study, upon his table and scattered over his books and papers from the 8th to the 20th of August; but no symptoms of the affection were developed until the latter date. He says: "I have worked at my microscope for the last four weeks almost every day, and have examined the pollen of nearly one hundred plants, of all classes and kinds, and yet have not had a symptom till the appointed day came." He concludes that the disease is in him; that no irritation will develop it until the appointed time; but that after that time has arrived irritants of different kinds will excite and aggravate its symptoms. They are not, however, to be set down as the cause.

ON ABSCESSSES AT THE VERGE OF THE ANUS.—Verneuil (*L'Abetle Medicale*) recommends that in opening such abscesses, when they are close to the rectum, the operation for fistula should be performed at the same time.

AMPUTATION OF THE CERVIX UTERI.—This is the subject of an interesting article in the *Annales de Gynecologie*, by Dr. Leblond, with the following conclusions:

1. That the amputation of the cervix ought to be practiced with the uterus in its natural position.
2. That the galvano-caustic method is particularly applicable to uterine cancer, although it may be equally employed in simple hypertrophy.
3. That, in default of galvano-caustic, it is the ecraseur we ought especially to choose in cases of cancer.
4. That the scissors are preferable to the bistoury where one does not care to employ the galvano-caustic or ecraseur.

[The experience of Dr. John Byrne, Brooklyn, who has had greater opportunity for investigation and who has perfected the apparatus of galvano-cautery for uterine purposes to a greater extent perhaps, than any one, abundantly proves that this method is not only preferable for the excision of the cervix in cancer so far as the immediate effects are concerned, but ultimately, as a curative means is its superior.—C. D. P.]—*Lancet and Clinic*.

THREADS OF WHALE TENDON AS A SUBSTITUTE FOR CATGUT.—Baelf (*Centralb. fur Chirg.*) following Dr. Ischiguro, of Japan, the inventor, recommends these threads. From experiments, he states that they are more rapidly and more completely absorbed than catgut ligatures. He finds that this absorption is assisted by steeping them in oil of the whale's liver. In operations he finds them more flexible than catgut, and from experience, considers that the only objection that could be made to them for ligaturing arteries, viz., that the absorption would be too rapid, is unfounded, and besides, could be got over by torsion of the arteries.—*Archives of Clinical Surgery*.

SALICYLIC ACID AS AN ANAPHRODISIAC.—A curious fact that may have direct and important bearing on the therapeutics of the sexual organs was brought to light by Dr. C. T. Jewett not long ago, and has since been verified in the case of a veterinary surgeon of Twenty-second street

New York. The doctor found that a patient who had been under his treatment for rheumatism for some time, began to complain that he was no longer able to obtain an erection of the penis. He had been upon fifteen-grain doses of salicylate of soda five times a day for some time. The doctor discontinued the salicylate and put the patient upon damiana, when his sexual power began gradually to return.

The veterinary surgeon put himself upon pretty large doses of salicylic acid for rheumatism, and after a time was surprised at his inability to erect the penis. Although he at once stopped the use of the medicine, he was three months in regaining his sexual power. More extended observations upon the subject are needed.—*American Medical Bi-Monthly*.

IPECAC AS A HÆMOSTATIC.—I have administered ipecac as a hæmostatic in hæmoptysis frequently for years past, and have found it the most efficient remedy in such cases. I have also used for the same purpose ergot and pyrogallic acid, both of which are efficient remedies, in hæmoptysis as well as in post-partum hemorrhage. But ipecac is certainly the best remedy in the treatment of hæmoptysis; and comparatively limited experience in its use in the treatment of post-partum hemorrhage leads me to believe that it is a too-much-neglected medicine in such cases. As a hæmostatic ipecac is an *old* remedy, but of all its wonderful power and efficiency in this direction my own opinion fully corroborates that of the great clinician, Trousseau, to whose writings in this connection I would further refer.—DR. Q. C. SMITH, in the *Pacific Medical and Surgical Journal*.

THE USEFULNESS OF CREMATION.—Dr. LeMoyné, of Washington, Pa., takes advantage of the Southern epidemic to say a word in favor of his pet theory of cremation. It will be remembered that he has built the only crematory in this country. "Burial at any place" says the doctor, "is followed by baneful results, but a shallow grave in the sandy soil of the South, which is no absorbent, and cannot

neutralize the gases, which commence to float up at once, is especially so, and more especially where the person dies of such a disease as the yellow fever. By cremation, while they dispose of the bodies more quickly than by any other mode, they at the same time purify"

He had just received a letter, he said, from Indianapolis, stating that a club had been formed in that city, having one hundred members from the first, and were now about to erect a crematory. Dr. Fletcher, one of the oldest physicians of the city, is at the head of it. The doctor gives it as his observation, as well as that of others interested in the matter, that a majority of the converts to the reform are of the gentler sex.—*Philadelphia Medical and Surgical Reporter*.

CONSOLIDATION OF MEDICAL COLLEGES.—At the last meeting of the Ohio State Medical Society a committee was appointed on the "consolidation of medical colleges." The idea was that too many colleges existed in Ohio, and that the profession would be benefited by concentrating the present teaching material into a smaller compass. The committee consists of one member from each of the seven faculties of the seven regular medical colleges of the State. The idea is a capital one if well developed.—*Detroit Lancet*.

... quantity of quinine two drachms of the oil were taken.—*Louisville American Practitioner*.

A LARGE HEART.—Dr. John Morris, of Baltimore, writes us: "Mr. John H. Weaver, a well-known undertaker of this city, died in May, 1877, after an illness of nearly two years. His disease was diagnosed, during life, as hypertrophy of the heart, with valvular insufficiency. Exami-

CAUSES OF SUICIDE.—Of the 5,567 cases of suicide reported in France during 1876, among the causes assigned are drunkenness, 1,443, afflicted with incurable diseases, 798, domestic broils, 633, dread of poverty, 329, less than one-third of the entire list is charged with drunkenness.—*New York City Hospital Journal*.

THE DIETIC VALUE OF LIGHT WINES.—An excellent authority, Surgeon-General C. A. Gordon, of the British army, testifies strongly of the value of light wines as supplementary to insufficient food. He says, in a recent letter:—

“During the siege of Paris, not only did I, while on short food rations, experience a desire for red wine, but I felt while using it that, in a measure, it actually supplied to me the requirements of food. When the siege began and food was not very scarce, I used to take half a litre of Chablis. This I at first liked very much, but as food became scarce I found the allowance intoxicating to some degree. I then abandoned it, to drink the common *vin ordinaire*, which I enjoyed, and felt the benefit of, as I say, my allowance of it being very often, nearer a litre than half a litre. In my work on ‘Army Hygiene,’ I gave my views on the subject generally. What I think is very important is the absence of ‘famine fever’ in Paris during the siege. This was at the time, by the French medical men with whom I conversed on the subject, considered due, in a considerable degree at least, to the fact that all the population had a quarter of a litre of red wine daily.”
British Medical Journal.

to believe that it is a too-much-neglected medicine in many cases. As a hæmostatic ipecac is an *old* remedy, but of all its wonderful power and efficiency in this direction my own opinion fully corroborates that of the great clinician, Trousseau, to whose writings in this connection I would further refer.—DR. Q. C. SMITH, in the *Pacific Medical and Surgical Journal*.

in forming the emulsion of twelve ounces. The next day, between 10 and 11 o'clock, Mr. H. took a large tablespoonful of this mixture, having previously taken in the morning a tablespoonful of a cough syrup, containing one drachm of acid, hydrocyan. dil. to eight ounces of menstruum. Soon after taking a dose of the emulsion he felt sick, and took another spoonful of the cough mixture. At 12 m. he felt

badly, and went to bed, thinking he was going to have a chill.

I was summoned in haste at 4 P.M. I met Dr. H. at the gate, who said the patient was in a bad condition as the result of my medicine, and that he had given him morphia and bismuth, and ordered milk. I found the patient almost pulseless, extremities cold, lips black, with face intensely cyanosed, looking like a corpse that had lain for hours in the sun. He gasped for breath like a fish out of water, and his speech was unintelligible. I gave him brandy, letting it run from a spoon down his throat, and kept an almost constant stream of cold water pouring on his head. After half an hour his circulation was much improved, and he complained of nausea and vomited what he had eaten the previous day, the result of having been freely dosed with mustard before my arrival. I continued the cold effusions and stimulants till 6.30 P.M.

At 7 P.M. his lips were still livid, but the pulse was good, and the face rapidly regaining its natural appearance. Twelve hours after I found him sitting up, complaining only of numbness of the extremities and weakness.

The principal subjective symptom in this case was intense pain in the head. As he recovered, he continued exclaiming, in a jerking, hesitating way, "What's the matter with me?" I judge, from the size of the spoon, that nearly or quite two drachms of the oil were taken.—*Louisville American Practitioner.*

A LARGE HEART.—Dr. John Morris, of Baltimore, writes us: "Mr. John H. Weaver, a well-known undertaker of this city, died in May, 1877, after an illness of nearly two years. His disease was diagnosed, during life, as hypertrophy of the heart, with valvular insufficiency. Examination of the heart, after death, revealed the following conditions: Distance from apex of left ventricle to the origin of aorta, six and one-third inches; thickness of left ventricle one and one-third inches; right ventricle one-third of an inch; weight *forty-four ounces*. It may be added that the valve held water very imperfectly."—*Medical and Surgical Reporter.*

ELASTIC ADHESIVE PLASTER.—For some time I have been trying to find an elastic covering that, being attached to the skin, would move to the movements of that membrane and the parts beneath it without causing an unbearable sensation of stiffness or an uncomfortable wrinkling. As there was nothing in our market to suit me I procured some india rubber, and giving it a coat of plaster, such as recommended in Griffith's Formulary under the name of Boynton's adhesive plaster (lead plaster one pound, rosin six drachms,) I found the material I wished. After using it as a simple covering for cases of psoriasis, intertrigo, etc., I extended its use to incised wounds, abscesses, etc., and found it invaluable. Placing one end of a strip of the plaster upon one lip of the end of the wound and then stretching the rubber and fastening the other end to the opposite lip of the wound I had perfect apposition of the several parts, the elastic rubber acting continually to draw and keep the parts together. When I have been unable to get the sheets of rubber I have used the broad letter bands (sold by all stationers) by giving them a coat of plaster. I do not know if this kind of plaster has ever been placed before the profession. If it has I can do no harm in again calling the attention of surgeons to it. If it has not, I feel assured that any one who uses it once will never again be without it, as it is cleanly, certain and satisfactory in its action, and fulfils indications that no other plaster does or can.—*Boston Med. and Surg. Jour.*

CONGRESS OF LEGAL MEDICINE.—This was one of the many congresses at Paris this summer, says the "Medical and Surgical Reporter." It passed the following resolutions: "That the Government be asked to establish in France institutions which have been at work for years in Hungary, Austria, Prussia, Belgium, Holland, etc., having for their object the formation of experts in legal medicine and experts in toxicology, remunerated by the State, and who shall be elected by *concours*, having for its basis trials essentially practical; that, with the object of educating

such experts, a great extension should be given in the different faculties of medicine to courses of practical legal medicine, such as M. Devergie first established at the Morgue in 1834, and which has been re-opened last year at the request of Professor Vulpan, Dean of the Faculty; and that special courses for instruction in toxicological analysis be opened at the Ecoles de Pharmacie.

ACTION OF PURGATIVES.—The “Doctor” says (“Med. and Surg. Reporter”) that Briger, experimenting by Moreau’s method, finds that in all cases secretion is increased. There is not only transudation of fluid, but the contents showed the intestinal glands had acted freely. This applies to neutral salts and to drastics. The latter, in full doses, produce inflammation. All excite peristalsis. Simple laxatives, viz., senna, rhubarb, calomel, aloes, gamboge and castor oil, seemed only to excite peristalsis, without increasing secretion. The loops of intestine in which they were introduced by their active movements spread the drug all over the mucous membrane, and the aqueous part of an infusion of senna was removed.

MILK AS A VEHICLE FOR QUININE.—New remedies: R. L. Batterbury, M. B., says if one grain of sulphate of quinia be dissolved in an ounce of milk, its bitterness will be hardly perceptible. Even with two grains the bitterness is not marked. Five grains may be taken in two ounces of milk without an unpleasantly bitter taste, while in a tumblerful the bitterness of this quantity is almost lost. Since the doctor chooses to recommend this as a mode of administering quinia to children, we think it proper to say that bad-tasting drugs, like quinia, should be given in articles of food, even in the case of adults, only in exceptional instances. There are other and quite as effectual ways of administering them, and it is therefore hardly advisable to risk the disgust which children often and adults sometimes acquire for wholesome articles of food, in consequence of their having some time been used as vehicles for medicine.—*Louisville Med. News.*

TREATMENT OF THE BROMIDE ERUPTION.—Dr. Russell reports the case of an epileptic, on whom a generalized, painful pustular eruption broke out, while under treatment, by the bromide of potassium. She was at the time taking about four scruples of the bromide per diem. The eruption was at first papular, but soon became pustular. The pustules were all as large as a pea, and some of them as large as two peas; the base was surrounded by an inflammatory zone. When the bromide was stopped the eruption disappeared, but it reappeared as soon as the medicine was resumed. Dr. Russell at last added five drops of the liquor arsenicalis to each dose of the bromide; in a week the eruption had disappeared, and no new pustules were afterwards developed.—*British Med. Jour.*

LACTOPEPTINE.—Our readers may remember that last winter we published the experience of several physicians quite favorable to the above preparation, (Vol. xxxvi, p. 245). Since then we have employed it in several cases of obstinate dyspepsia, and have been gratified, even surprised, at the very excellent results obtained in the great majority of cases. We think it decidedly superior to any form of Pepsin, "pure and simple," we have yet exhibited.—*Medical and Surgical Reporter, Philadelphia, Feb. 2d, 1878.*

ADVANTAGES OF LEGAL CONTROL OVER PROSTITUTION.—The classical work of Parent Duchatelet, on Prostitution in Paris, contains this passage: "If legislation cannot render men virtuous; if it cannot correct the judgment and repress the impetuosity of passions which appeal to their senses too loudly to leave them the consciousness of duty; at least it may meet the danger to which the imprudent expose themselves, and, for the sake of these men's wives and children, look after the health of the guilty in order to preserve the innocent. I will go further, for I maintain that it ought to do so, and that those who have neglected this important duty have been unfaithful to their trust, and can only be excused by their ignorance of the benefits of the sanitary surveillance of prostitution."—*Medical and Surgical Reporter.*

ATLANTA Medical and Surgical Journal.

VOL. XVI.] NOVEMBER—1878. [No. 8

Original Communications.

OPERATION FOR STRICTURE, FOLLOWED BY URÆMIC POISONING.

BY H. L. WILSON, M.D., ATLANTA, GA.

September 7th, 1878, I operated on Alvin D., age 30, for strictures of the urethra. He had one at the meatus, another behind the corona glandis, and a third in the bulbous portion of the urethra. I could only introduce a No. 9 French bougie at first, but by gradual dilatation I increased the size sufficiently to introduce Civiale's urethrotome. After passing all of the strictures, I sprung the blade, and gently withdrew the instrument, cutting on a line with the frenum.

Immediately after the operation, I introduced, first, a No. 30, then 31, and at last 32 French bougie, with ease to the patient. I had purged his bowels the day before, and ordered x grs. quinine the night previous to the operation. I now gave quinine, grs. v, and ordered a warm hip bath, with positive instructions for him to remain in bed, which he did until September 12th. Each day I introduced the largest bougie, and left him all the time in splendid condition. On the 12th I allowed him to sit up in a rocker, on the 13th he came to my office, to have the instrument used, and announced himself well,—had no trouble whatever. I cautioned him to go slow, to do no work, and to be prudent in all things. On the 14th he failed

to appear at my office, and failing also on the next day, I began to make inquiry, and found that he had been drinking;—about the same time I received a call to see Alvin, with the information that he was dying. Upon reaching his room, he informed me, that about two hours previous, he had attempted, while sitting in a chair, to introduce our instruments, being still under the influence of whisky: he succeeded only in bringing about excessive pain, inability to pass his urine, and considerable fever, —the first fever he had. His rigors were frequent and alarming. I gave him a hypodermic injection of morphine gr. $\frac{1}{2}$, and as hot a bath as could be borne; in about twenty minutes he relaxed and fainted; I immediately took him from the bath and placed him between blankets, with plenty of bed clothes on top to keep him comfortable. He said he felt good, and passed urine freely. On the morning of the 16th I found he had passed a comfortable night, voiding some urine about 4 o'clock in the morning. During the afternoon a cool stage came on, which lasted several hours, but did not amount to a distinct rigor. I gave him whisky and quinine every hour and a half to induce reaction, which eventually came in a very tardy and feeble way. He now had congestion of the kidneys, and by percussion over the region of the bladder I found there was no water present; for fifty-three hours he did not secrete one drop of water. Uræmia supervened, being a dry harsh skin, pulse 130 to 140, and delirium. I continued the whisky and quinine, and in addition gave bi-carb. pot., grs. x, in Ponce de Leon water, every three hours; I pushed the water in interim.

At the expiration of time mentioned, he began to void very offensive decomposed urine, and in about twelve hours thereafter, reason gradually returned. At this juncture, there was some diaphoresis, with continuous fall of the pulse, until it reached the normal beat. I continued the treatment *pro re nata*, and in some ten or twelve days my patient was able to sit up, and improved each day to complete convalescence.

A synopsis of this case was reported to the Atlanta

Academy of Medicine, and published in the Oct. No. of the ATLANTA MEDICAL AND SURGICAL JOURNAL.

The case being one of great interest to me I have concluded to give more fully the particulars of it, and hence the article now presented.

CEREBRO-SPINAL MENINGITIS.

By J. G. WESTMORELAND, M.D.

Human suffering and mortality would be greatly lessened could ambitious, investigating men certainly determine the point where sthenia ends and asthenia begins—the exact difference in symptoms of inflammatory and non-inflammatory diseases. Pathological changes indicative of the process producing them are discovered on internal parts by *post-mortem* examinations, but too late to profit in the treatment. On organs subject to inspection during life, changes occur from diseases which are by some attributed to inflammatory process, while others declare no such action exists. Even such structural changes as are usually the result of acute inflammation, whether discovered in life or *post-mortem*, are often declared to be the result of poisoned blood, and the disease asthenic in character.

Now, one of the greatest difficulties in the way of arriving at correct conclusions is found in the fact that general prostration of the vital energies follows violent inflammation of a controlling vital organ, and of other organs when extensively diseased. The circulation declines, nervous power is weakened, the skin becomes cool, and all the organs perform their functions imperfectly. Usually inflammatory condition to any considerable extent, in even unimportant parts, causes increased activity of the circulation, heat of the surface, flushed face, thirst, etc. Let the brain, the heart, or a considerable portion of both lungs, however, be the subject of inflammatory action, and the general symptoms will be vastly different. Instead of the symptoms just named, I should expect generally to find those of an opposite character, and the more violent and extensive the inflammation of these vital

organs, the greater will be the general prostration. In place of mental excitement as found in disease of inferior organs, stupor will more likely be present; and scarcely perceptible circulation at the wrist will take the place of frequent bounding pulsations, such as is found in pleuritis, hepatitis, etc.

These facts and conclusions certainly apply to meningitis, and possibly also to diphtheria. The fact that meningitis prevails as an epidemic, does not disprove its inflammatory character any more than the occasional prevalence of epidemic pneumonia proves it non-inflammatory. The tendency to inflammation in certain parts, from peculiar atmospheric conditions, or other causes transmitted through the air, must be admitted. Extensive inflammation of the lungs occurs with many in the same neighborhood, often under such circumstances, leading to great prostration, sometimes from the shock to the nervous centers, sometimes from want of proper oxygenation of the blood in the lungs. These facts do not prove the disease non-inflammatory, however completely prostrate the subject may be early in the progress of the disease.

As evidence that depression of the nervous energies does not necessarily depend on blood poison, so-called, we can call to mind the utter prostration that results from extensive traumatic injury, giving immediate and powerful shock to the brain.

If these facts be recognized as true, how much more certainly should we look for prostration when a controlling vital organ, such as the brain and spinal cord, are the subjects of extensive inflammation? Though the envelopes of the nervous centers are the parts primarily implicated, the organs themselves are not only embarrassed by the changes effected in the meninges, but extension of the disease to the centers themselves takes place more or less, no doubt, in all cases.

If we should meet with a case of stupor amounting almost to coma, with cool skin, feeble pulse more or less opisthotonos, and dilated pupil, poisoning of the brain by some narcotic should not be too hastily acknowledged as the cause. Such symptoms are sometimes found early in meningeal inflammation, and are dependent upon the

great determination of blood to the cranial cavity, pressing unduly upon the brain, and thus partially destroying its function. Any means which will lessen this excessive amount of blood in the cranium, tends to restore the cerebral function and to restrain the progress of inflammation. Tonics of quinine and other supporting means cannot, of course, change this dangerous condition, and in depending upon them we but pursue an expectant course, which is to result fatally to the patient if the disease is of sufficient violence to produce death.

During the epidemic of 1872, most physicians in Atlanta pursued this course, and concluded that the poison had made such a powerful impression upon the brain that its energy could not be restored. Under these circumstances nothing could be lost by pursuing a different course. Nothing more than death could be the result of any treatment, and a bold innovation could not be looked upon as hazardous beyond the unsuccessful course pursued.

The report of autopsies invariably had shown evidence of acute inflammation of the meninges, and the symptoms being such as might result from such condition, treatment to change this pathological state seemed to be a rational course of procedure. Of course the usual indications for active depletion, such as full, strong pulse, had to be discarded; for sometimes when the physician was first consulted, the pulse was barely perceptible, owing to the pressure upon the brain by accumulation of blood in the cranium. In this state, abstraction of blood can be had with difficulty. From the arm it will flow very slowly, and of course cups do not deplete rapidly. Persistence in both, however, will slowly drain from the head so as to relieve the cerebral oppression and lessen the danger of fatal results of the inflammation.

Syncope is the first evidence of excessive depletion; and it is not likely to occur in meningitis from abstraction of blood. When so completely surcharged with blood it is no easy matter to deprive the brain of a quantity sufficient to produce syncope. Therefore, when cool skin and feeble circulation are the result of cerebral oppression from determination of blood to the organ, no fears need be entertained of increasing the depression by general depletion to a reasonable extent.

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Reports of Societies.

ATLANTA ACADEMY OF MEDICINE.

ATLANTA, October 28, 1878.

Dr. J. F. Alexander, President, in the chair.

Dr. George H. Rohe exhibited an apparatus for the inhalation of ether. He remarked that the unpleasant effects of chloroform inhaled to produce anæsthesia, had induced him to seek something safer. With this view, he had concluded to use ether in preference, and in looking around had found what is called a sponge bag. This suggested the propriety of so regulating the inhalation that comparative safety may be secured by making an apparatus which will afford the greatest amount of the anæsthetic in the shortest space of time. This will, of course, afford insensibility with less amount of ether than when taken more slowly. Poisoning, therefore, is less likely to occur. The apparatus presented to the Academy is intended for ether only, and so arranged that no air is inhaled along with the ether, which Dr. Rohe thinks accounts for the readiness of producing anæsthesia so speedily and safely. Complete insensibility may be produced in two or three minutes and with two or three ounces of ether. The inhaler exhibited consists of a cloth bag lined with a thin coat of rubber, and containing a loose piece of flannel for the absorption of the ether when poured into the bag. A mouth-piece is attached to the bag, which is so perfectly fitted to the face that no air can enter along with the inhaled ether. Dr. R. inclines to the rejection of chloroform entirely as an anæsthetic, and does not at all approve of a mixture of the two.

Dr. Baird, while he very highly approved of Dr. Rohe's apparatus, was inclined to object to his sweeping denunciation of chloroform. He thinks that with proper caution chloroform may be used safely, and in certain cases is preferable to ether.

Dr. Rohe, in answer, remarked that there are usually

exceptions to most general rules, and in this case there are exceptions, such as the use of actual cautery about the face, making ether objectionable.

Dr. Lowe expressed satisfaction at the exhibition of Dr. Rohe's inhaler, and found many points of interest connected with it.

Dr. Baird reported favorable progress in the treatment of the case of diphtheria, reported at last meeting. He also alluded to the case of so-called idiopathic tetanus. A recent discovery in the case is likely to lead to a favorable termination. On examination it was ascertained that slight adhesion of the prepuce to the corona glandis existed, and the attempt at retracting the foreskin induced a violent paroxysm. The second attempt had the same effect, and not until the patient was completely anæsthetized could the examination proceed and the adhesion be broken up. Since this relief from the unnatural condition of the prepuce the patient gives encouraging evidences of improvement.

ATLANTA, November 4, 1878.

Dr. Calhoun presented a specimen of an injured eye, by a shot entering the nasal side of ball just in rear of the cornea. Enucleation of the ball was determined upon, on account of evidences of sympathetic inflammation having made their appearance. Dr. C. called attention to the fact that such injuries almost invariably cause blindness, not only of the injured, but of the uninjured eye. In answer to the question whether the removal of an injured eye is a certain protection to the other, said that it is generally certain protection to the sound eye, if not delayed too long. Cases were mentioned, in which sympathetic inflammation of the sound eye commenced at various periods after the injury, from a few days to thirty or fifty years. He also reported a case of diphtheria of the conjunctiva, which he treated by the local application of sulphur and internal use of iron. The treatment was commenced yesterday, and to-day decided improvement is apparent.

Dr. Rohe inquired whether there were evidences of con-

nection between the injury in one eye with the loss of sight and in the other, after the lapse of fifty years, and whether other causes may lead to the second difficulty? To which Dr. Calhoun replied that such may sometimes be the case, but from certain symptoms the sympathetic origin may be determined.

Dr. Baird reported progress in the treatment of the so-called idiopathic tetanus. After the last report the prepulse was slitted, and improvement seemed to progress satisfactorily; afterwards for two days was not doing so well as before. Since that time improvement is marked, and the prospect of recovery is now flattering.

Dr. Grant presented specimens of medicinal indigenous plants, and gave some of the therapeutic results to be expected from their use. The leaves, stems and flowers of the plants are arranged carefully on paper boards, so as to preserve their identity as clearly as possible. Some three hundred medicinal plants have been collected from different points in Georgia, mostly in the neighborhood of Atlanta, and preserved in this way by Dr. Grant.

PROCEEDINGS OF THE SUFFOLK DISTRICT MEDICAL SOCIETY.

MARCH 30, 1878.—Seventy-five members were present, the president, Dr. Homans, in the chair. The records of the last meeting were read and accepted.

United States Pharmacopœia.—It was voted that the councilors be requested to appoint a committee to report upon the next revision of the *Pharmacopœia*.

Carcinoma of the Conjunctiva.—Dr. Albert N. Blodgett read a paper on "Carcinoma of the Conjunctiva," in a case occurring in the practice of Dr. H. Derby, who supplied the clinical history as follows: The patient is a clergyman, seventy-one years of age, native of Ireland. His mother is said to have died of cancer, but no definite clinical history of her case is known. He himself has been in feeble health for a number of years, has had his feet frozen, and is the subject of hernia. September 24,

1877, he presented himself, and complained of a small tumor on the conjunctiva of the left eye, situated at the inner edge and opposite the middle of left cornea, 2 mm. long, 1.5 mm. broad, and 1.5 mm. in height, of a peculiar whiteness, and having a granular surface, as if made up of numerous fine grains of sago. A livid redness surrounded it, gradually shading off into the healthy conjunctival white. In a fortnight later the growth was 4 mm. long, 3 mm. broad and 2.5 mm. high. Ether was administered, and the whole carefully excised October 8th. Healing was good. Two weeks later a very small similar growth was observed at the lower edge of the wound, and after consultation with Dr. Wadsworth, was carefully excised under ether. Every trace of the growth was removed. The cornea remained clear and intact.

Dr. Blodgett gave a description of the histological character of the growth, which was carcinomatous, the microscopic view being represented by India ink drawings. Medical literature contains but few cases where the description of this disease is so clear as to make a diagnosis possible. Many cases are recorded as malignant disease, scirrhus, cancer, epithelial disease, etc., where it is impossible in the present confusion of terms in pathology to determine in many instances what the disease may have been. The importance of a careful histological examination of tumors was pointed out, as well as the necessity of nomenclature in pathological growths which should be founded upon the histological structure of the growth, and not upon physical peculiarities. The proper designation for growths of the kind under consideration is *carcinoma*, rather than any of the names often applied to it, for this name carries with it a distinct idea of the structure of the tumor.

The primary development of carcinoma in a part of the body previously healthy was next described and illustrated by drawings from sections. The epithelium is the invading element in this disease, and forms massive trunks which plow the tissues in all directions, causing their destruction, and producing the enormous loss of substance sometimes observed. The ulceration is caused by

the necrosis of the epithelium itself. It is well known that blood-vessels do not ramify in epithelium, but extend only to the boundary of the connective tissue, upon which the epithelium is developed as a covering. The cells of epithelium are proliferated from its deepest layers, and are pushed up toward the surface by the multiplication of new cells below it. For a certain distance upon its way to the surface the cell can absorb sufficient nourishment from the connective tissue to sustain its vitality, but when it is a little further removed from the connective tissue, the nutritive supply is no longer sufficient, and the cell becomes shrunken, flattened and dry, and is finally cast off from the surface as a scale of epidermis. If the epithelium takes a direction downward into the connective tissue, the march of the epithelial formation is followed by the necrosis of the same at a certain distance behind, thus producing a more and more extensive loss of substance. This may be proved in any advancing case of carcinoma; wherever the disease is active the microscope will show masses of cells penetrating into structures not before infected, and at a certain distance behind we shall find the necrosis of the epithelium as above described. The "bird's nests" are the result of pressure upon the necrosed epithelium, and are not always found. They are not of definite shape, but take any appearance which the pressure of the parts around may impart. The thick, indurated connective tissue around the masses of epithelium is due in great measure to the mechanical irritation of the epithelium, which acts as a foreign body in the tissues. For this reason the Germans call it *Reizungsgewebe* (irritation tissue). In cases of so-called scirrhus it is the hypertrophy and induration of the connective tissue surrounding the epithelial masses which cause the great hardness. In secondary deposits the same kind of epithelium is found as in the primary form of the disease.

The probability of recurrence of the disease in carcinoma of the conjunctive seems rather less than in other parts of the body, for the reason that the disease in this location is brought to the notice of the surgeon at a much earlier period of its development than would be thought

necessary in other situations. There is now, after a lapse of six months, no sign of a recurrence in this patient, although no one would venture to say there was no danger of a return.

Dr. Wadsworth mentioned two similar cases in which he and Dr. Williams had operated, the eye having been enucleated in one instance, and a tumor, which undoubtedly was an epithelioma, having been removed in the other nine months before without recurrence. He thought that such tumors might not be so rare as had been supposed.

A New Theory Regarding Myopia.—Dr. D. Hunt read a paper on myopia, of which a *resume* follows:

Considering the anatomical facts presented at the last meeting, we believe that the form of the myopic eye is caused by increased growth of the brain tissue, which forms the optic vesicle; this increased growth is produced by causes similar to those that have effected the enlargement of the cerebral vesicles, the results of which we notice in the greater frontal development of civilized man.

The type of ciliary muscle characterizing myopic eyes is a production of the same agencies that effect the elongation of the globe; sclerotica and ciliary muscle form from the same layer of embryonic connective tissue, and at the same date.

The separation of the sheaths of the optic nerve represents an embryonic enlargement of the head of the optic nerve, also caused by the increased growth of the retina composing the optic vesicle.

Posterior staphyloma is the result principally of an increased growth of the embryonic ganglion of the fifth nerve; this ganglion and the optic vesicle enlarge at the expense of the layer of connective tissue situated between them; the posterior portion of the temporal half of the eye is developed in this layer of connective tissue. The augmented growth of the ganglion of the fifth pair, which is the principal agent in the causation of posterior staphyloma, encroaches directly upon the connective tissues forming the root of the first brachial arch. This results in a decrease of the protuberance of the maxillary structures

formed from this arch; in other words, contributes to a decrease of prognathism.

Organic lesions that terminate in destruction of nerve terminations are generally not hereditary. We believe that the cause of this peculiarity is to be explained by considering the central nervous system as the active agent in producing hereditary changes; the sudden destruction of the nerve terminations prevents the long-continued and oft-repeated impressions upon the central nervous system that seem to be necessary to make any local peculiarity (the point of origin of the impressions) an hereditary trait.

Examining Table.—Dr. Chadwick showed a new table which he had devised for gynæcological purposes. It is described in full, with illustrations, in the *American Journal of Obstetrics*, April, 1878, and is for sale by Messrs. Codman & Shurtleff.

Cerebral Syphilis.—Dr. Ayer reported an interesting case of cerebral syphilis, which was published in the *Journal*, September 19, 1878.

Dr. Bowditch asked whether it would not have been allowable to use a mild mercurial course, as the iodide of potassium evidently did not give relief. In this case, when the end was certain death unless relief were obtained, and especially when the case was evidently syphilitic, would not the use of calomel have been proper?

The case reported brought back to Dr. Bowditch's mind that of a student in a seminary of this city, whom he was called to attend. The patient was about twenty years old, and had been gradually growing more and more ill for two years. He had most violent headaches, occurring especially in the night, destroying quiet sleep, and finally reducing not only the physical health, but also the mental powers, so that the patient had been obliged to give up all intellectual exercise, and was listless about everything. When Dr. Bowditch saw him, he was having intense headaches every night, and he seemed childish. He had been under the care of two physicians, one of whom thought he had softening of the brain, and the other diagnosticated a cephalic tumor. On close inquiry, the patient denied all

syphilitic taint. There were no symptoms of this disease, unless this nocturnal cephalalgia were one. The patient had been treated during the two years with various remedies without effect. All those employed by Dr. Bowditch seemed useless, and gave no relief. Dr. Bowditch said that our fathers would have used mercurials in such a case, and he thought it proper treatment. Accordingly, discarding all other remedies, calomel alone was given, a grain or two-grains daily, in divided doses, three times a day. The patient was directed to suspend temporarily the treatment as soon as any soreness of the mouth, or even a metallic taste, was felt. The result was that, for six weeks or more, the slightest soreness and ptyalism were kept up until the patient wholly recovered. Some relief began with the first trace of the mercury on the mouth, and it went steadily onwards to the perfect cure. It seemed as if something had been effectually overcome by the use of calomel.

Dr. Bowditch was well aware that one case would prove nothing. Dr. E. H. Clarke, when the case was read at another society, had asked whether it might not have been a mere coincidence rather than a consequence of the mercurials. The reply was that it was easier to believe the cure was a consequence of the continued use of the remedy than that, after two years of suffering and gradual prostration in body and mind, with constant headaches, relief, by a mere coincidence, should have suddenly begun, and gone on step by step, but comparatively quickly, to perfect restoration to health, without any relation existing between the remedy and the cure. Dr. Bowditch regretted that mercurials had not been cautiously tried in the case reported by Dr. Ayer.

THE PHILADELPHIA PATHOLOGICAL SOCIETY.

PHILADELPHIA, Thursday, September 26, 1878.

The President, Dr. H. Lenox Hodge, in the chair.

Dr. John H. Brinton opened the discussion by exhibiting specimens from six fatal cases of stricture of the urethra.

CASE I. A man, thirty-seven years of age, in whose case the parts had first been stretched, and internal urethrotomy then performed. A well-marked attack of urethral fever followed the introduction of the catheter several days after the operation, accompanied by vomiting and suppression of urine. The patient died on the fifth day. The autopsy showed the kidneys to be large and congested; an old, false passage running from a point one inch in front of, to a point two inches behind, the stricture; great congestion of the prostatic sinus, in the neighborhood of which there was an almond-sized cavity filled with pus; bladder slightly congested; neighboring veins in a highly phlebitic condition; phlebitis the evident cause of death.

CASE II. Internal urethrotomy performed, followed by introduction of No. 10 Thompson sound. Death on the forty-third day; bladder hypertrophied and contracted, scarcely holding two fluid ounces of urine; stricture entirely healed; death caused by multiple abscesses of both kidneys.

CASE III. Stricture dilated gradually; no operation performed. Death on thirty-seventh day; bladder full of pus; false passage; death caused by severe pyelitis.

CASE IV. Stricture dilated; no operation performed. Kidneys dilated and congested; bladder contracted and lined with tubercular deposits; large urinary abscess reaching nearly to the fundus of the bladder; all urine passed through a fistula; death on the fifth day, caused by inflammation of the lungs.

CASE V. Stricture dilated by Holt's instrument. Kidneys full of multilocular cysts. Death on forty-seventh day, due to this cystic disease of kidneys.

CASE VI. Meatus cut and stricture dilated at three o'clock in the afternoon; surgical fever entirely controlled by opium and quinine. The man turned over in bed, and died without a groan at six o'clock on the following morning.

In commenting upon the above cases, Dr. Brinton said that all the deaths had occurred in his hospital practice; that he had never lost a single case in private practice;

that he had been able, by carefully tabulating all his cases, to reach the same conclusion drawn by Sir Henry Thompson, namely, that two-thirds of all strictures are to be found in the bulbo-membranous portion of the urethra; that in a total of sixty-eight cases of stricture following gonorrhœa, the average period elapsing between the time of gonorrhœal infection and the appearance of the stricture had been found to be from five to seven years. The doctor further stated that urethral fever appeared in three out of a total of seven cases in which divulsion and urethrotomy had been performed in all of the cases in which internal urethrotomy had been employed, namely, four; in eight out of a total of twelve cases where divulsion after Holt's method had been used; in all of the cases of perineal section, namely, four; and in eight out of a total of twenty-two cases where gradual dilatation was employed.

Dr. Samuel W. Gross had paid much attention lately to the subject under discussion, and wished to call attention to the fact that in cases of stricture where other portions of the genito-urinary apparatus were involved, any operation, no matter how slight it might be, in hospital practice was likely to be followed by death; that patients entering the hospitals with venereal diseases and stricture were, as a usual thing, entirely broken down in constitution before applying for medical aid; that in such cases he had known death to follow the passage of a catheter. He wished to call attention further to the fact that only the most gentle methods of treatment had been employed in Dr. Brinton's cases, and that what seemed to be a very ghastly showing was due simply to the causes which he had just pointed out.

In his case, as in Dr. Brinton's, the results of private practice had been altogether different, but of twenty-five hospital cases he had three deaths following internal urethrotomy, and one death following divulsion; whereas in a total of seventy-six cases in private practice, in forty-seven of which he had performed internal urethrotomy, and in twenty-nine divulsion, he had not lost a single case. He said that he always gave a full dose of quinia before attempting any operation on the urethra, and after

the operation injected a good quantity of morphia under the skin. He stated that of the four fatal cases in his hospital practice one death had been caused by pyæmia, and in the other three cases a *post-mortem* examination had shown the kidneys to be granular and contracted; that no albumen or tube casts had been found in the urine of these patients.

Dr. Gross's results differed somewhat from those reached by Dr. Brinton and Sir Henry Thompson; in only about forty-six per cent. of his cases had the stricture been located in the bulbo-membranous portion of the urethra. He desired to lay particular stress upon the following conclusions which had forced themselves upon him, namely: first, that when a stricture is found in the glandular portion of the urethra there will almost always be another further back; second, that protracted gonorrhœa was the most frequent cause of stricture; third, that divulsion and perineal section were the worst of all the operations for the relief of stricture; and, fourth, that in his experience most of the cases of urethral fever were found to follow the operation for internal urethrotomy.

In closing, Dr. Gross wished to state as his positive conviction that gradual dilatation was only a palliative means of treatment, and that a stricture could never be permanently cured except by cutting it; that before performing internal urethrotomy, however, he always made it a rule to put his patient through a course of what might be called gradual dilatation.

Dr. Charles W. Hunter wished to know whether urethral fever occurred after the passage of the catheter, as some authorities held.

Dr. Brinton replied that he placed no confidence upon such statements; that in his practice urethral fever had occurred irrespective of catheterism altogether, in some cases before, and in others after, the introduction of the catheter.

Dr. Hunter wished to know if stricture had ever reappeared in Dr. Gross's experience after internal urethrotomy.

Dr. Gross said that it had been impossible to follow up

most of his cases, but that in those few which he had kept in view there had been no return of the stricture.

Dr. O'Hara desired to inquire as to the means of determining whether a fever was urethral or not.

Dr. Brinton, in answer, detailed the symptoms of urethral fever—the chill, the profuse sweating, the rapid pulse, etc.,—and said that if fever appeared five or six hours after the operation it was generally of purely nervous origin; if twenty-four hours after the operation it was in all probability urethral fever; and if as late as seventy-two hours after operating it was, without doubt, pyæmic in nature.

Dr. Charles B. Nancrede related a case in his practice in which a complete cure had followed internal urethrotomy. Dr. Brinton also mentioned several cases.

Dr. Hunter had never employed any method for the cure of stricture but that by gradual dilatation at the University Hospital, and had never as yet known of a single case permanently cured. He wished to inquire into the rationale of internal urethrotomy. Why was it that cutting the stricture did any good? He thought that the tendency of all cicatrices was to contract steadily. He certainly knew this to be so in the case of burns of the skin.

Dr. Gross was aware that cicatrices contracted steadily as a general rule, but said this was not the case in the operation for division of a stricture, and for this reason he never allowed the sides of the wound to heal together, but forced them to heal by granulation by the daily introduction of bougies of large calibre thoroughly distending the parts. That in this way instead of a constantly contracting cicatrix he was able to add a new fold of mucous membrane to the calibre of the stricture—a fold equal in length to the combined width of the sides of the cut.

Dr. Edward O. Shakespeare had quite recently, in company with Drs. D. Hayes Agnew and I. Henry C. Simes, examined under the microscope sections from several cicatrices following the operation of internal urethrotomy, and in every instance had found a large preponderance of elastic fibres in the stricture of the cicatrix: in one instance as much as seventy-five per cent. of its bulk being

composed of elastic fibres. It was thus plain that cicatrices of the mucous membrane of the urethra were different from those of the skin, since there was always a preponderance of fibrous tissue in the latter.

Dr. I. H. C. Simes confirmed Dr. Shakespeare in the above statement of the results of his investigation.

Dr. Charles B. Nancrede called the attention of the society to the extreme value of this discovery, and said that Sir Henry Thompson in his most recent publications had denied the existence of elastic tissue in urethral cicatrices.

The president, Dr. H. Lenox Hodge, wished to dwell upon one fact which he thought had been overlooked in the discussion, namely, that proper significance had not been laid upon the almost universal and necessary implication of other organs in stricture of the urethra as an element always of possible fatality in the diagnosis, not only in hospital cases, but also in private practice. Dr. Hodge could remember one case in his own practice in which entire cure had followed gradual dilatation of a stricture.

Dr. Carl Seiler thought that there was always less contraction in a cicatrix of the mucous membranes of the body than in one of the epidermis.

Dr. Hunter, in opposition to this statement, instanced a case of a child who swallowed sulphuric acid, the calibre of whose œsophagus had been entirely obliterated, causing death by starvation.

Dr. Shakespeare was sorry that he could not agree with Dr. Seiler's statement.—*Boston Med. and Surg. Journal.*

ATLANTA MEDICAL COLLEGE CLINIC.

Service of Prof. J. G. WESTMORELAND.

November 4, 1878.

CASE 1.—Coran R., white male, æt. 25 years, a farmer by occupation.

You perceive, gentlemen, that this young man's general appearance does not denote very serious illness at present; nor do we find the usual evidences of acute dis-

ease, such as fever, debility, etc. Some general symptoms, however, are very prominent. The cough, which we find pretty constant since his appearance before us, denotes diseased condition of some portion of the respiratory apparatus, and his report of its continuance for some time past shows a permanence of the lesion requiring decided measures for its relief. The general symptom of pain he describes, seems to be that kind we would expect from irritation or inflammation of the bronchial mucous membrane, differing from pleural pain very materially. While the suffering of bronchitis is described as a burning sensation as of rawness, during the rapid passage of air along the tubes in the act of coughing, pleuritic pain is sharp, lancinating as though a knife was piercing the chest, and is aggravated by movement in the act of breathing, coughing, etc., and by pressure on the intercostal spaces over the inflamed pleura.

Besides these general evidences of disease, the progress of science furnishes the student at this day, means of diagnosis unknown to the profession half a century ago. Physical signs of pectoral disease, practiced by Laenec, and improved upon by Flint and others more recently, make diagnosis comparatively easy and certain. The scalpel of the ancients did not more certainly reveal the true pathological state than do now the physical means of diagnosis. The stethoscope and pleximeter, in hands experienced with them, make known the nature and location of lesions connected with the thoracic viscera, which cannot otherwise be revealed during life.

In this case, for the purpose of ascertaining more certainly the cause of cough and other general symptoms of disease, I proceeded to auscultate the voice and respiration, and to percuss both sides of the chest. No dullness, indicating decided obstruction to the ingress of air is discovered in any portion of the lungs. The sounds of the voice and respiration are natural, or nearly so, except at the base of the right lung a little dullness and slight crepitation or fine bronchial rale are perceptible.

Taking these physical signs with the general symptoms of cough and sense of rawness in the chest, we locate the

trouble in the base of the right lung, principally in the bronchial tubes of that part. The history given by the patient, to the effect that the frequent tickling cough, with the occasional expectoration of mucous, has troubled him for two or three weeks, and that the previous tendency has been to persistent cough after taking cold, proves the existence of chronic irritation of the bronchia.

In order to arrest this tendency to permanent chronic inflammation, counter irritation and the action of local alteratives or cathartics are advised.

To accomplish the first, croton oil is directed to be rubbed upon the front of the chest twice a day until pustulation is had, and re-applied when the pustules disappear. In order to affect directly the diseased mucous membrane of the bronchia, various local alteratives would answer the purpose if they could be made to reach the part affected. Nitrate of silver, chloride of zinc, or sulphate of copper can be used only in the forms of liquid and solid, and in these forms cannot be applied to the minute bronchia. It is true a solution of nitrate of silver may be injected into the air passages, but the result would be anything but desirable. Twenty years ago a thorough test was made, but the sad experience of such bold experimenters is left as a warning to enterprising practitioners in future. Powdered substances cannot, of course, be made to pass over moist surfaces and reach points so remote; nor can the vapor of water or other liquids be made to carry substances not volatile in themselves. Remedies only, therefore, which may readily assume the form of fumes, can be successfully applied to the bronchial mucous membrane. Unfortunately, there are but few of these which have local alterative or cathartic property. Iodine is perhaps the only one that can be relied on for this action.

In addition, then, to the counter-irritation by croton oil, I direct that iodine be inhaled once a day for a week, and then once in two or three days for a few weeks, or until the evidences of bronchial irritation disappear. In order to protect the patient against the danger of return, it is advised that inhalations be renewed on the appearance of cough following the contraction of cold during the winter.

A very simple apparatus is sufficient for the purpose. A small vial with large mouth—a common morphine vial—may be heated on a stove or over a lamp. Into this three to six centigrams (one-half to a grain) of iodine should be placed, and the fumes inhaled at once from the vial through the mouth.

The inhalation may be made through the nasal passages, but unless these are also the subject of disease, unnecessary pain is produced in the sensitive membrane lining them, and therefore the mouth is preferable in this case.

CASE 2—Anna A., mulatto, æt. 24 years, married, and the mother of three children, the youngest nine months of age. Has cough and yellow expectoration at night. Has not breathed easily through the nose for several years. In this case, auscultation of the respiration reveals the sound of rough breathing, as it is sometimes called, dependent on increased amount of mucus in various parts of the bronchia. Percussion gives normal sounds. The patient also states that lumps resembling scabs are discharged from the back part of the nose into the throat.

This, gentlemen, is a representative case of that class known as nasal catarrh, the study of which will be found more important to you than any disease I shall be able to present during the session. It is important, not so much from the danger of death attending it, but on account of its extensive prevalence and the difficulty of permanent cure.

Here we have nasal and bronchial catarrh. Commencing, perhaps, in the nostrils, it has extended into the fauces and thence to the larynx. Even when confined to the nares much difficulty is found in effecting a permanent cure, if of long duration before treatment is commenced.

The term catarrh is applicable to discharge from the nostrils, or other mucous membranes, of more than the usual quantity of mucus from any cause. Common bad cold or influenza is accompanied with profuse discharge from the nose on account of congestion of the pituitary mucous membranes, and is generally called acute catarrh.

The bladder, uterus, etc., are said to be affected with catarrh when so diseased as to keep up profuse mucus discharge. Chronic and acute are terms which denote the duration of such discharge. Chronic nasal catarrh is the name given to chronic inflammation of the nasal mucous surface, and, like chronic diseases of other parts, requires longer or shorter time for cure, in proportion to the duration. Hence, a case which has existed for several years must necessarily tax the patience of physician and subject for a long time before a cure can be effected permanently.

Another disease of the nares which is sometimes confounded with chronic inflammation, is known as *ozæna*, and depends upon ulceration or caries of the bones just beneath and on the lateral walls of the nares. This differs materially from catarrh, and seldom if ever results from simple inflammation of the mucous membrane. The ulceration of these bones of the nose may depend upon syphilitic contamination or strumous diathesis, or, as is often the case, occurs without constitutional taint of any kind or other known cause. This loathsome affection is the dread of persons affected with catarrh, but for their consolation the physician can generally deny such probable result.

The treatment of chronic nasal catarrh, or, more properly speaking, chronic inflammation of the pituitary membrane, is necessarily tedious when the disease is of long standing; and in order to succeed, must be continued at proper intervals for months and even years. The tendency to return always exists, and without vigilance on the part of patient and physician, the disease, after having apparently disappeared, will be found to assume its original severity in a few months.

The nasal douche of salt water or other medicated liquid, used daily, is the common treatment for such cases. The following will be used in this case for a few days:

R.—Sulphate zinc,	1 gm.
Water,	50 cg.

Dissolve.

To be placed in a douche bottle and elevated so as to

flow through a rubber tube into one nostril and out at the other, thus coming in contact with the entire surface of each.

Selections.

THE LOCAL TREATMENT OF ECZEMA.

By HENRY G. PIFFARD, M.D.

Eczema is the most frequent, one of the most obstinate, and certainly the most important of all the cutaneous affections. Its successful management requires a judicious combination of internal and external treatment, with, in addition, proper hygienic attention. Of these the hygienic is the simplest in its applications, insomuch as a clear conception of the nature of the disease immediately suggests the proper rules of diet, exercise, and the like. The internal treatment—that is, the use of drugs, is the most important, but, at the same time, the most intricate portion of the treatment, and will be considered in its details on another occasion. The local treatment stands midway in importance between the internal and hygienic, and midway also as regards simplicity.

The rule of local treatment is somewhat limited, but if we desire to do our best for the patient, its proper application should not be neglected. In a few cases local treatment alone will succeed in dissipating the lesion, but will not prevent or retard a relapse; in many cases it will materially assist the internal treatment in abridging the duration of the manifestations of the disease, and in a certain number it will modify the subjective phenomena.

Eczema presents many phases varying with the stage, character of the primitive lesion, degree of inflammatory action, individual peculiarity of the patient, complicating circumstances, etc.; but in all of these cases the indications for treatment are so clear that, once rightly appreciated, many of the apparent difficulties disappear.

In no affection with which we are familiar is it so im-

portant that the idea of a routine treatment based upon nosology should be abandoned. As regards the internal treatment, it is the *patient*, with all his functional or organic derangements, that demands consideration; in the local treatment it is the cutaneous *lesion* that must be studied and cared for. We must in both cases remember that the conditions actually present in one patient are seldom exactly duplicated in another, and, consequently, that treatment which is best for the first may not, and probably will not, be best for the second. In other words, we must individualize the cases in the strictest manner.

As the present article concerns the lesion only, we will make a brief allusion to the conditions most frequently present, and indicate the principles of treatment that find their application under the varying circumstances of the case.

Every outbreak of eczema commences with a prodromal period of local cutaneous congestion, characterized by heat, redness, slight or almost imperceptible swelling, and certain subjective sensations, which attract attention to the parts. From the appearances alone it will be often difficult to decide what form of cutaneous disease is impending, just as during the first day of an active febrile movement we may be unable to predict the character of the disease that will be developed on the morrow.

This period of congestion is rarely presented to the eye of the physician, except when it occurs in patients who are already suffering from more advanced eczematous lesions in other parts of the body, and who have already come under treatment for them.

Under these circumstances we have known the application of solid nitrate of silver to cause a disappearance of congestions that we supposed would have otherwise developed into frank eczemas.

This prodromal congestion, if uninterfered with, usually eventuates in some one of the so-called special primary lesions of the disease. These are six in number. In the first place, the active congestion may give place to a passive one of indefinite duration, characterized by redness, and often a trace of fine desquamation with possibly a

little occasional moisture, alternating with the more usual dryness. The cases were formerly classed as chronic erythemata, but a closer study has convinced most dermatologists that they are essentially eczemata. Little attention has been paid to this form in the text-books, but an admirable delineation of the affection will be found in Dr. Dühring's Atlas. The congestion is usually accompanied with a moderate amount of subjective heat, or itching. This form of eczema is more frequently on the face than elsewhere. The most effective treatment for this variety is internal, but still a great deal of assistance is afforded by external, means employed in conjunction with the latter. The indications are to reduce the congestion, and to relieve the itching. To accomplish the former, the ordinary well-known astringents may be employed. In addition, we have derived benefit from the application of a solution of bromide of potassium in rose-water and glycerine, varying in strength from ten to twenty grains to the ounce. Fluid extract of ergot, rubbed up with cold cream, and a similar preparation of arnica root are also of service. The pruritus, however, must be attended to. This ceases with the congestion, but as this latter will not always subside with wished-for rapidity, antipruritics are often advisable. These may be employed separately or combined with the other applications. Besides the well-known antipruritics, hydrocyanic acid, chloroform, etc., the mixture in equal parts of chloral hydrate and camphor, introduced by McCall Anderson, is worthy of special mention. This mixture, in the proportion of ten to twenty grains to the ounce of ointment, will sometimes greatly palliate the itching.

In the majority of cases, however, instead of the simple chronic congestion, we find a development of certain special lesion, which consist in either vesicles, pustules, papules, fissures, or an exfoliation of the horny layer of the epidermis, or there may be a mixture of two or more of them. This condition is usually termed the first stage, and as regards the vesicles and pustules, lasts for a day or two only. It rarely comes under notice, and requires little in the way of treatment, other than the application of

cooling lotions, or better, either the black or yellow wash (mercury and lime-water). To the first stage succeeds the second, characterized by exudation and crusts, specially marked in the vesicular, pustular, exfoliative varieties, less so in the others. The accumulation of secretion and crusts in this stage necessitates ablution, but unfortunately the contact with water proves very irritating in many cases, often causing a decided aggravation of the patient's sufferings and a prolongation of the trouble. If, however, we bear in mind the condition present, namely, the skin deprived of its horny epidermis, but with the delicate and succulent cells of rete Malpighii exposed, we can readily understand why the water proves irritating. It is due to endosmosis, causing tumefaction, and perhaps rupture of the cells. The remedy is equally apparent. It is only necessary to use, instead of water, a fluid whose specific gravity is about the same as the serum of the blood. A mixture that we frequently employ is rose-water, to which is added a little glycerine and chloride of sodium. This will be found much less irritating than pure water.

The crusts being removed, the cleansed parts are in a condition to benefit by some mechanical application, usually in the form of ointment. Of these, the oxide of zinc, when nicely made, is perhaps the best when a protective application alone is needed. It is probably not to any great extent curative, its chief office being to shield the parts from friction and atmospheric influences. The tincture of benzoin it contains, however, probably exerts a soothing influence. The most effectively curative ointments in this stage and condition of eczema, are those containing some preparation of mercury: the ammoniated mercury, the nitrate, and the black oxide. The two first may be employed in ointments of officinal strength, or somewhat diluted, the third in the proportion of ten grains to the ounce. Lead comes next to mercury in usefulness, and is usually employed in the form of *ungt. diachyli*. This, to be of service, must be carefully made, and quite fresh, as it easily becomes rancid and irritating. The "glycerole of the subacetate of lead" (Squire's formula) is not open to this objection. These ointments must

be used with caution if the affected surface is extensive, as we have known both mercurial and plumbic symptoms to arise in consequence of their too free employment.

The pruritus, which is usually present and sometimes severe, invites attention. Unfortunately, it is very difficult to relieve. The chloral mixture above referred to should not be applied to a surface deprived of its epithelium, in consequence of the pain it produces, and chloroform should not be used in connection with the lead or mercurial ointments, as it greatly promotes the absorption of these metals. It may, however, be used with the zinc. The ointment containing it must, of course, be kept closely stopped to prevent its evaporation. Decided relief to the itching is sometimes obtained by adding to any of the ointments mentioned a little tincture of *Hamamelis Virginica*. The best preparation is made from the fresh plant. The various "extracts," "double extracts," "red extracts," fluid extracts, etc., in the market represent but a portion only of the virtues of this plant. Country physicians would do well to make their own tincture of *hamamelis*, using the bark of the smaller limbs or twigs, and macerating it for a few weeks in sufficient 80 per cent. alcohol to cover it. By this means they can obtain a good tincture very much cheaper than a reliable article can be had in the market. *Hamamelis* is a drug too highly estimated by the public, but too much neglected by the profession. *Stramonium* and *conium* are also useful anti-pruritics. The white precipitate or black oxide may be added to the *ungt. stramonii*, or *tinct. stramonium* may be added to the *ungt. hydrarg. nit.* In spite of these the itching will often prove obstinate, and disappear only on the cure of the eruption itself.

When an acute *eczema* has passed through the period of exudation and crusting, and enters the third stage, characterized by redness, dryness, and scaling, the changed condition will demand a change of treatment. Here the mercury, zinc, lead, etc., are of comparatively little service, and should be replaced by some preparation of tar. Of these the most important are the *ol. picis*, *ol. rusci*, and *ol. cadini*. The last, when genuine (which is seldom the

case), is the best. The tar is mixed with simple ointment in the proportion of one or two drachms to the ounce. A useful preparation belonging to the same category is the "*olio di maiz guasto*," much used in Italy. It is prepared from corn.

Thus far we have spoken of acute eczema only, and more particularly of the vesicular, pustular, and exfoliative forms.

In the fissured form, especially on the palms of the hands and behind the ears, we have found plumbago (the best for this purpose is known as "photographic graphite") in ointment (1-10), or mixed with lycopodium or some other inert powder, exceedingly valuable.

When an eczema becomes chronic, it does so either from sheer indolence or in consequence of excessive infiltration. If the indolence is marked by decided venous stasis, dark bluish red color, etc., the hamamelis before mentioned will be found specifically useful; if, however, this feature is not present, or the color of the patch is rather paler than is usual in eczema, the ham. V. will not be of much, if any use. Under these circumstances we need stimulating, *i. e.*, irritating applications. The basis of these may be hydrarg. biniod., hyd. bichlor., potass. iod., iodine, cantharides, croton oil, and many others that will immediately suggest themselves. The first three may be prescribed in ointment, the last three should be applied by the physician—the iodine in tincture and the cantharides in collodion. The croton oil is very conveniently used in the form of solid cylindrical sticks, made by melting together equal parts of croton oil and white wax, and pouring the mixture into paper molds. A single application of either of these irritants is often sufficient to change an indolent patch of eczema into an active one, which then only requires the treatment appropriate to the second stage of ordinary acute eczema to bring about a cure within a reasonable period.

Quite recently we have obtained excellent results by a process that we believe is original—namely, the hypodermic injection of the arseniate of sodium into the eczematous patch. We use solutions of one-fifth per cent., one-

half per cent., and one per cent. If there be a single patch of moderate size, a single injection of five to ten minims of the one per cent. or one-half per cent. solution is made. If the patch is larger, or if there are several of them, the weaker solutions are employed, and two or more punctures made in the larger patches or distributed among the smaller ones. The injections are to be repeated at intervals of two or three days, *p. r. n.* As yet we have seen neither abscess nor undue reaction. If the physician will take the precaution to obtain pure arsenite of sodium and distilled water, and make the solution himself, he will be more likely to obtain good results than if he leaves the fabrication of the solution to some apothecary's clerk.

A chronic eczema characterized by excessive infiltration rarely exhibits any tendency to heal until the infiltration has in a measure been dissipated. The lead, zinc, and mercurial ointments will rarely prove of much service in these conditions. The special irritant applications just mentioned will do more harm than good, and will probably increase the infiltration. Its removal, however, may frequently be accomplished by the strong alkaline lotions. If *liq. potassæ* or a stronger solution of potash be applied to the infiltrated patch, we will observe, in a few minutes, a more or less copious exudation of clear serum, with, perhaps, a slight temporary increase of swelling. The exudation may continue for some hours, and then gradually diminish. Coincident with the decline of the irritation, the infiltration in part subsides. The application may be renewed at the end of three or four days or a week. The *modus operandi* of the alkaline application is not quite clear. The effects are possibly due to exosmosis, as we have seen the same result follow the application of strong glycerine. Instead of the potash solutions, *sapo viridis*, or ordinary soft-soap, may be used. This should be well rubbed on with a bit of moistened flannel, till the exuding serum has a slight tinge of red; the application to be repeated once or twice a week, if necessary—emollients to be used in the intervals.

We may also attempt the reduction of the infiltration by stimulating the absorptive function of the sanguine-

ous and lymphatic capillaries. The pathological condition present consists in a superabundance of small white cells. Whether these are outwandered leucocytes, or proliferated connective-tissue corpuscles, is a question not yet settled. The present problem is to get them away from the part of the skin in which they have accumulated. Which set of capillaries performs the principal, or perhaps the entire work in this matter, we frankly confess we do not know. Certain it is, however, that "stimulation of the absorbents" may be effected in several ways. The most effective of these is kathodic galvanism. When this is impracticable, we are accustomed to rely upon some of the more active so-called "acro-narcotics" of the indigenous materia medica. Among these hydrastis and its derivatives hold a first rank. Next in usefulness, in our own experience, has been the iris versicolor. This is met with in trade as a tincture made from the fresh plant, as a fluid extract, and as a "concentrated tincture" (Keith's) made from the dried plant. Here, again, the country practitioner has an advantage over his urban brother, inasmuch that he can, at small expense, make for himself a good tincture from either the fresh or the freshly-dried root, as he desires. We prefer to rely upon the fresh tincture, as the virtues of the dried root become impaired by long keeping. (*Vide* U. S. Disp.) In using the iris versicolor, from 3 ss. to 3 i. are mixed with simple ointment and rubbed up until the alcohol is evaporated. Another tincture that may be usefully employed in the same manner is that of the viola tricolor. This is not strictly an indigenous plant (being naturalized from Europe.) The imported tincture is the one we rely on. That made from the garden plant (cultivated for its flowers) is comparatively worthless. We are not aware that the *v. tricol.* grows wild in any part of this country. The *v. pedata* (*vide* Disp.), however, is found from "New England to Illinois and southward" (Gray). As the active principle of the various violets is believed to be the same, it is possible that the native species, especially the *v. pedata* (*vide* Disp.) may prove as useful as the foreign.

After the infiltration has been in part or wholly re-

moved by some of the means indicated, the patch of eruption will be in a condition to benefit by the mercurial ointments, etc., followed, if necessary, by tarry applications.

The whole of the foregoing relates to eczemas of the general surface. In certain special locations, however, a few modifications of treatment are desirable. When the affection is located upon the scalp in children, and is extensive, the crusting may be very great and the parts become the home of numerous pediculi. Under these circumstances, delphine or kerosene will destroy the insects. Poulticing will soften and aid in removing the crusts, and cutting the hair will greatly facilitate recovery.

When eczema attacks the hairy portions of the face, the morbid action is sometimes propagated to the lining membranes of the hair follicles (outer and inner root-sheaths), constituting one of the affections which commonly pass under the names of mentagra and sycosis. In these cases it is necessary to remove by epilation all the hairs that proceed from the diseased follicles, in order that the remedial application may penetrate them. In fleshy women eczema sometimes succeeds intertrigo of the sub-mammary and genital regions. In these cases dusting powders play an important role.

Eczema of the lower extremities, especially of the legs, is not unfrequently complicated with varicosis and very considerable infiltration. In the former of these conditions, hamamelis, and in both of them elastic compression, will prove of great service.

Lastly, indolent and thickened eczemas of the palms and soles are often exceedingly obstinate. The thickened epidermis may be rubbed down with sand-paper or pumice stone, and the parts enclosed (at night) with some impermeable fabric (rubber gloves, etc.) The cutaneous exhalations thus retained macerate the parts and excite a healthier action.

The successful management of eczematous lesions necessarily demands an exact appreciation of the conditions present, a knowledge of the means by which they may be remedied, and the proper application of the means.—*New York Medical Record*.

MICROSCOPICAL OBSERVATIONS IN YELLOW
FEVER.

BY J. B. MARVIN, M.D.

The literature of yellow fever is very voluminous, but our knowledge of the pathological anatomy of the disease is very meagre. I believe by calling to our aid chemistry and the microscope, valuable additions will be made to our knowledge of the disease. While resident physician at the Louisville Yellow Fever Hospital, I improved my opportunity by making frequent and extended chemical and microscopical examinations. I present you to-night a brief summary of my work as far as I have finished it. I present you bare facts, illustrating my remarks with mounted specimens. I offer no theory or deductions from my work, believing that our knowledge of this disease will be best advanced by a careful and conscientious record of facts instead of vagaries and theoretical hypotheses.

The Breath.—Pure glycerine was smeared in the centre of a clean new glass slide, and held an inch or two from the nostrils or mouth of the patient. After a few minutes' exposure to the breath the slide was examined under the microscope. Large quantities of very active vibrios were revealed; they were of the short, dotted variety. There were also found roundish, oval, moving bodies, probably bacteria.

The Blood.—A drop of blood from the finger was received on a slide covered with thin glass, avoiding pressure, and examined. The corpuscles were more or less jagged and crenated. In some severe cases there was a large increase in the number of white corpuscles. Scattered among the corpuscles were small oval and rod-shaped bodies, yellowish in color, and quite active in their movements. They were probably bacteria, but do not resemble vibrios or any form of bacteria that I am familiar with. More extended observations in this and other fevers must be made before attaching undue importance to the existence of these bodies in the blood and breath. The question naturally suggests itself whether these bodies are the

cause or the result of this disease. I incline to the belief that they are the result. Every precaution was taken, in making these examinations of the breath and blood, to avoid contamination. The examinations were made with a Folles one-tenth inch immersion objective and a "B" ocular.

The Urine.—The points of interest in the urine were the constant presence of granular tube-casts, renal epithelium and granular matter, all more or less stained yellow with bile; the tube-casts in severe cases appearing as soon as the second day, more generally on the third or fourth day of the attack. In all cases there was an admixture of vesical epithelium. In some few cases there was a great abundance of vesical epithelium for a few days before the appearance of tube-casts or renal derivatives. The quantity of tube-casts may be small or very large. The severer the case the greater the quantity of casts. Tube-casts are very valuable guides in the prognosis of the disease. As convalescence sets in, the casts generally disappear. In some cases, however, they continue in considerable quantity till the patient is up and walking about.

The Vomit.—After the stomach had been emptied of food the vomit was glairy mucus and epithelium streaked with blood, bearing a striking resemblance to the sputum of pneumonia. Bile in greater or less quantity was generally present. Frequently pure blood was vomited in large quantities, the ejection of blood frequently alternating and following black vomit. The coffee-ground or black vomit consists of blood more or less digested and broken down by the gastric juice and bile. There were large quantities of vibrios, an oval, not recognized growth, and frequently very large crystals of hæmatodin.

The Liver.—The principal pathological changes are found in the liver. The color may be bright yellow, orange, nutmeg or normal. The organ is generally enlarged, the enlargement being very slight in some cases. It is very firm and tough. On section, the hepatic cells are granular, frequently stained with bile, and have undergone almost complete fatty degeneration. There is gen-

erally an increase of the connective tissue and a consequent pressure upon and destruction of the cells. In one case, aged twenty-seven, not a drinker, who had suffered at intervals for two years with malarial fever, there was an enormous increase of the connective tissue visible to the eye, giving to the organ the appearance found in cirrhosis. On section, all the appearances of cirrhosis were found, with marked fatty degeneration in parts, and in other places amyloid degeneration.

The Kidneys.—The kidneys are congested and in some cases considerably enlarged. On section, there are found tubal and inter-tubal hemorrhages. The tubes are filled with granular matter and epithelium; in some parts the tubes are empty and completely denuded of epithelium. There is frequently fatty degeneration, slight in degree. In short, the kidneys present all the appearances Bright's disease.

The Spleen.—The spleen presents no constant or marked deviation from health. In some cases, which gave history of previous malarial trouble, the organ was enlarged and pigmented. In other cases there was no enlargement or pigmentation.

The Stomach.—This organ does not appear congested as stated in text-books. The mucous membrane is pale, and is not destroyed. In only one case was there any thickening of the membrane or enlargement of the rugæ. On section, the glands and villi are but slightly changed. The villi, especially their free extremities, contain blood. I am convinced that the changes stated to have been found in this organ are really post-mortem changes, due to the fact that examinations were not made until some hours after death. Post-mortem changes are very rapid, and the sooner an examination is made the better.

The Intestines.—The intestines generally present the same appearance as the stomach. In some cases there is marked congestion, and the villi present appearance of acute catarrh.

The Bladder.—In those cases where there is suppression of the urine for any length of time before death, the bladder is badly congested, the mucous membrane being pur-

ple in spots. In other cases there is no marked change. The gall bladder is full of bile, frequently greatly distended and badly congested.

The Lungs.—This organ presents no constant change. In several cases there was recent pleuritic adhesion; in one case there was severe pneumonia. In some cases the organ is completely collapsed. The color is generally dark and mottled; hemorrhagic spots are frequent.

The Heart.—The heart may be full or empty. In some cases there is marked fatty degeneration, the walls being pale and friable. Most generally the organ is normal. The pericardium always contains more or less reddish fluid, the amount varying from one to six ounces.

The Brain.—No lesions were found in the cerebrum, nor constant change at the base of the organ. In cases which had marked delirium, there was marked congestion and softening at the base. I have not finished my microscopic examination of this organ.—*Louisville Medical News.*

INTRA-OCULAR CIRCULATION: RHYTHMICAL CHANGES IN THE VENOUS PULSE OF THE OPTIC DISK.

BY DR. O. F. WADSWORTH AND DR. JAMES J. PUTNAM, OF BOSTON, MASS.

The investigation to be described in this paper was undertaken by us originally for the purpose of studying for ourselves the effects of compression of the veins and arteries of the neck, and of inhalation of amyl nitrite on the retinal circulation. It is published, however, mainly for the sake of the observations whose nature is indicated in the title of this paper; and our results as regards the other points, which have so often been the subject of controversy, will be only briefly noted.

The method of experimentation was always the same, one of us always examining by the upright method the same eye of the other, the pupil fully dilated with atropine. To further fix the appearances a careful sketch of the disk and vessels was made.

It was soon found that the best point on which to fix attention was a main branch of the vena centralis, which pulsated distinctly as it turned to plunge into the physiological depression near the centre of the disk, receiving at its bend a smaller branch which also pulsated. Changes in the size and shape of the pulsating portion of these vessels formed the most obvious, indeed the only reliable signs of variation in the vascular supply to the fundus.

1. *Compression of the Jugular Veins.*—This was done by twisting a handkerchief about the neck. The compression could easily be carried so far as to cause the veins to stand out in relief on the forehead, and the whole face to assume a dusky hue, not to speak of causing blurred vision and an uncomfortable sense of fullness in the head.

The effect of this procedure on the intra-ocular circulation was, however, so slight, if there was indeed any, as not to be made out with certainty. Sometimes an appearance of greater fullness of the veins at the pulsating point seemed to be present, but the pulsations went on as before.

2. The effect of the *pressure on the carotid* of the same side with the eye examined, were studied in the following manner: The pressure was made at about one-and-a-half inches above the clavicle by one finger of the examiner, and was increased to a degree sufficient both to stop the beating of the temporal artery, and to cause a distinct sensation in the head, quite different, it may be said, from that due to compression of the jugular veins. So soon as this result was produced all pulsation in the vein ceased abruptly, and the vein remained narrow, as in the condition of so-called venous systole, so long as the pressure was kept up. Immediately on relaxation of the pressure on the carotid the vein refilled completely, and the normal pulsation was re-established.

This observation seemed to us to have an important bearing on the theory of the venous pulse. It is well known that two prominent theories with regard to this phenomenon are held; one, that of Coccus, who maintained that at the time of arterial diastole the blood flowed out of the eye, through the veins, more rapidly than before, the veins at the same time partially collapsing near

their point of exit; the other, that of Donders, according to which, at the time of arterial diastole, the vein at its point of exit is compressed, which causes a backing-up of the blood just behind this point. The latter view is the one which appears supported by the results of the experiments just described. Here the pressure on the carotid prevented the arterial diastole, and so long as the pressure was kept up that part of the vein which normally pulsed remained in a semi-collapsed condition, *i. e.*, in the condition of so-called venous systole.

So soon, however, as the pressure was removed, and the heart's impulse again allowed to distend the artery, this portion of the vein refilled, entering into the condition of venous diastole, and then the pulsation went on as before.

3. *Inhalation of Amyl Nitrite.* The first result of two or three full inhalations of this drug, poured upon a handkerchief, was that at once, even before the full sensorial effect had developed itself, the vein at the pulsating point became reduced in size, as it had done when pressure was made on the carotid; the pulsation did not, however, as in that case, cease altogether, but became rapid, and sometimes imperceptible, always slight. No change could be detected in the appearance of the arteries at this stage, nor of the veins, except at the point referred to.

As a *secondary* result of the inhalations, which made its appearance just about the time that the sensorial symptoms began to abate, the veins refilled at the pulsating point, the pulsations themselves becoming again more manifest. A more exact account of the condition of the vein at this period will be given after the description of the rhythmical changes alluded to at the outset of the paper.

4. *Rhythmical Changes in the Venous Pulse.* When the portion of the veins above referred to was attentively watched, it was seen that besides the changes which have been recognized as constituting the venous pulse, there were other periodical variations in the size of the pulsating portion of the vessel. These latter occurred at intervals which, by their length, recalled the rhythmical changes in arterial tension, described by Traube, Hering,

Cyon, and Sigmund Mayer, and which perhaps are the cause of the long waves of movement of the brain, noticed by Mosso and others, including one of ourselves. In other words, besides pulsating in the usual manner, the vein, at the point alluded to, was seen to dilate and contract gradually, in periods corresponding to about five respirations. The vein thus seemed to pulsate under the influence of two distinct systems of waves, one synchronous with the cardiac impulses, the other, the long waves, due perhaps to changes in arterial tension. Under the influence of these long waves the diameter of the vein varied, independently of the ordinary pulsations, often as much as in the proportion of two to one.

While such a wave was at its height, each ordinary pulsation seemed to diminish the diameter of the vein by about one-half, whereas at the lowest point of the wave, ordinary pulsations almost obliterated the calibre of the vein.

The passage from the highest to the lowest point of these long waves was gradual and pretty regular, though not absolutely so, the period of each wave occupying, as has been said, the time of about five respirations.

These waves were to be made out at every examination, when carefully sought for, but were not always equally marked.

To recur now to the condition of the circulation during the second stage of the amyl experiments, when, as was said, the vein refilled, as the subjective symptoms began to diminish in intensity. It was noted that after refilling, the vein remained for a few seconds persistently distended to the size which it usually had at the height of the long waves, the cardiac pulsation continuing however, and then the long waves again began to show themselves.

In the first two experiments with amyl nitrite the period of inhalation was short, and it occurred to us as a possibility that the coincidence of the secondary filling of the vein with the passing off of the subjective symptoms might be only accidental. To determine this point the inhalation was repeated, and continued a much longer time than before.

In this instance, also, the vein remained narrowed as long as the effect of the drug was kept up, and again re-filled as the subjective symptoms diminished. During this last experiment it did appear as if there were some slight increased fullness of all the veins, but it was, at the most, of trifling amount. No change in the general color of the disk was observed in this or any other experiment.

Journal of Nervous and Mental Diseases.

SOME THOUGHTS ON THE THERAPEUTICS OF PARTURITION.

By S. C. BUMM, M.D., CLEVELAND, OHIO.

Cases where there are inefficient pains in some stage of labor, and especially the first stage, I am in the habit of treating with uterine stimulants and relaxing remedies, such as warm teas, bathing feet in hot water, sitz baths, warm vaginal injections, whisky, quinine, ergot, external manipulation, change of posture, rupture of the membranes, etc.

When called early to a case of labor, before there is any dilatation, with irregular, lancinating pains, I prescribe about one-eighth or one-sixth of a grain of morphia. If the pains are false this will generally quiet them down. But if labor proceeds, it regulates the pains and keeps them from returning so often, but increases their severity. I regard morphia in stimulating doses as one of our most useful uterine stimulants. It seems also to have a relaxing effect upon the circular fibres of the os, and in turn stimulates the longitudinal fibres of the body to stronger and more protracted contractions. Hence, I seldom fail to give it in those cases characterized by rigidity. It should be given with discrimination, however, for if we get too much it weakens the pains; but I have not hesitated to give it in full doses where the labor was protracted and the patient exhausted, to quiet down the pains and let the patient rest for an hour or two. I have noticed that they would waken up refreshed, and labor would go on with greater energy to successful termination.

I remember to have had one case of abortion at five months, where the patient suffered so severely with the pains that I gave full and repeated doses to restrain them; but to my surprise it acted just like ergot, and the pains were continuous for the next eight or ten hours, or until the partially decomposed fetus was expelled.

In a great many instances, hot pepper or ginger teas answer all purposes as a uterine stimulant, and these simple though efficient remedies should not be ignored.

In many cases whisky or brandy has been, in my hands, a satisfactory agent; but it is a remedy I never use myself, and I dislike to prescribe it very much; when given, it should be given in small quantities and often.

Ergot has, in my hands, proved perfectly satisfactory as a uterine stimulant, and, what may seem strange to some, I have not hesitated to prescribe it in every stage of labor. In the beginning of labor, where there is a lax condition of the os with inertia, or even where there is slight rigidity, I have given it in small doses with satisfaction, having never had any ill effects. Where there are strong pains, with rigidity of the os, I think it a dangerous remedy, and in such cases should not be given unless it be in the few last expulsive pains of the second or third stages of labor. But I find that authors are unable to lay down directions for its administration, and a practitioner must be guided by his own judgment, and his success will be according to his intuitive knowledge of what his patient will bear. When it is given in the first stage of labor it should be given in very small doses, and its effects carefully watched.

Where vaginal injections are used to promote relaxation, they should be composed of some mucilaginous fluid, as flax seed tea, slippery elm, etc. In using simply hot water it removes too much the natural lubricating mucus, which is poured out in great abundance, and thus leaves the parts hot and dry, and so retards the labor.

Where there is too great a quantity of liquor amnii, the walls of the uterus, being stretched to their utmost capacity, will not contract with any degree of force. Under such circumstances it is necessary, in order to expedite

labor, to rupture the membranes, and by thus draining off the superabundant fluid, the uterus is enabled to concentrate its powers. I regard this as a valuable procedure, and have had recourse to it many times with great satisfaction.

I never treat a case without recourse to external manipulation, making pressure with the left hand by grasping, or rather kneading, the uterus, commencing with the pain. In the beginning of the second stage, where the head of the child is large and the woman muscular, it does not advance as it should. Then we may place the woman upon her left side, and make pressure with the left hand over the uterus, while we introduce the fingers of the right up well, and lift the perineum as with Sims' speculum; this procedure will let the head advance rapidly in many cases.

Where there is delay in the head passing the vulva, by introducing one or two fingers into the rectum and making pressure, we may assist labor materially.

I have often noticed that in many cases there is an obliquity of the uterus, more especially a tipping forward of the fundus. In such cases the head of the child presses against the anterior lip of the uterus, and hinders advancement. In such cases I hook one finger into the os, between pains, and draw it forward, holding it up until another pain comes and establishes its natural position.

I never allow the placenta to remain over fifteen or twenty minutes. I generally give a dose of fluid extract of ergot, and practice "Crede's method," which consists in grasping the uterus through the wall of the abdomen and squeezing out the placenta, holding on to the cord and pulling it gently.

I have used chloroform in a few cases, pouring a small quantity upon a napkin, and letting the patient take two or three inspirations at the beginning of a pain. This is sufficient to ease the pain somewhat without lessening its force.

I have never had but one severe case of flooding, and I attribute my success in this particular to the external manipulation made use of in labor before referred to, thus

keeping up continuous contraction. This case was treated by lowering the head, ergot, cold water to the abdomen, with stimulants. The case was a severe one, but the treatment proved satisfactory.

In cases of abortion, if the pains are insufficient, and placenta retained with hemorrhage, I use ergot, and hot water injections up to the os. These should be used just as hot as the patient can bear. They will generally bring on pain, check the hemorrhage and expel the placenta.

I had one case, however, where nothing seemed to give any relief, and with all my efforts, I could not get the placenta away. It sloughed away in three or four weeks, with occasional hemorrhages, which were controlled with the tampon.

In puerperal fever, I have used with success hot water injections, or a weak solution of carbolic acid, every three or four hours. This seems to give great relief to pain and soreness, and also washes away unhealthy discharges. It also acts somewhat as a poultice, inviting the flow of lochia. This treatment, with fomentations externally and opium and quinine internally, has been the treatment most successful in my hands.

THE THEORY OF REPRODUCTION.

By S. Z. AMMEN.

Discoveries in biology within the last fifty years have relieved the processes of reproduction and gestation of some of the mystery which formerly surrounded them. Reproduction of the human species is shown to be essentially but a partition of the parent organism; gestation, the retention of the detached fragment in a part capable of supplying organic matter in an easily assimilable form. In this view, the relation of offspring to parent is not that of a product to the producer, or of a thing created to a creator, but that of a part to the whole. The germinal cell, or spermatozoon, is to be considered as much identical in substance with the parent, as are the small crystals of cop-

per sulphate with the large one from the solution and recrystallization of which they are resulted.

In an animal of highly complex structure like man, the correctness of this view is not so evident as at first sight. There have been developed in him so many highly specialized structures, for other purposes, that the nature of the act of reproduction is apt to be misunderstood from its very simplicity. By the study of organisms of little or no specialization of structure, biologists have been able to simplify their problem, and attain positive results. Indeed, it has been found that the essential material of life, bioplasm, or protoplasm, which gives all its vigor to the cell, may and does exist without any specialization of structure whatever. It has been found in vast quantities at the bottom of the Atlantic as a kind of formless but living slime, capable of assimilating materials for its growth from the sea-water.

Here we have reproduction in its simplest manifestations: a mass of organic matter in contact with inorganic matter raises the latter to the organic state. We are concerned at present with the curious question of the nature of "vitality." It is sufficient to call the attention to this *Urschleim* of the Germans, this cell-material not yet formed into cells, which possesses the vital property of a capability of assimilation. "Chemical action is wasting its substance and dissipating its energy on the one side, and rebuilding and reconstructing its parts on the other." Its material particles are continually being wasted and excreted, while new particles are as incessantly being added to its mass. It is a living substance without any determinate form. A small mass of it subjected to new chemical conditions, may readily be supposed to have formed about its exterior a thin pellicle, which will protect the protoplasm within from change. If the new conditions become permanent (conditions occasioned by new currents of water, with matter of slightly different chemical constitution in solution), we may expect all protoplasm not thus protected by exterior (cell) walls to be destroyed. A cell thus formed would assimilate and excrete the material of its growth through its cell-wall, by the familiar

processes of diffusion, endosmosis and exosmosis. So much for its nutrition. Its growth, however, would seem to be prevented by the narrow limits of its wall. The solution of this difficulty may be very prettily illustrated by a chemical experiment. Introduce carefully a large drop of an aqueous solution of tannic acid within an aqueous solution of gelatine. On coming in contact, the acid and gelatine will form a leathery coating around the drop, completely inclosing it, and separating, of course, the acid within from the gelatine without. In short, an artificial cell is formed. If we watch the behavior of this cell, we shall first see that the gelatine, without passing within through the cell-wall, by a process of endosmosis causes a thickening of the cell-wall and a compression of its contents. This is presently relieved by a bursting of the cell-wall, so that a drop of the acid protrudes, like a bud. Around this, in turn, a new wall is formed, and the process of budding will go on till the supply of acid within is exhausted. In like manner it is, we may suppose, that cell-life proceeds. There is this important difference, however, in favor of the cell containing protoplasm over that containing tannic acid, that the former can manufacture materials for its growth from its surroundings indefinitely, while the latter must stop when its little original supply is exhausted. But the comparison holds far enough to illustrate the process by which the reproduction of cells takes place. The new cell buds out from the old, receiving part of its substance. In many of the lower plants and animals reproduction takes place by fission; the parent mass simply splits in two, and each half is entitled to the name of parent, as well as son. Many organisms (composed of more than one cell) multiply by budding. Thus the zoophyte of our coast develops numerous buds on his exterior. These after awhile fall off and float away to grow up in the sea—the analogue, for such embryos, of the womb in the human species. The zoophyte, it will be observed, reproduces by buds upon his (or her) exterior, and hence performs no function of gestation. Other animals develop buds upon their interior surface, and supply them with material for growth in the shape of easily assimilable or-

ganic matter. To this class man belongs. Yet another class, budding interiorly, resolve themselves wholly into offspring, the integument alone surviving. Here the weight of the offspring is almost equal to that of the parent. In these last two classes there is a veritable gestation, a provision of conditions specially favorable to nutrition. All the higher animals demand thus, during the first period of their growth, a more plentiful supply of assimilable matter than is to be found diffused in the water of the sea, or in river water, or in the soil. Animals nourished only in these various wombs of mother earth are puny in size and simple in structure. The proper growth of a cell demands that it be plentifully supplied with nourishment from the moment of its detachment from the parent mass.

The facts here cited are sufficient to enforce the truth that the so-called young of any organism is not essentially a different individual from its so-called parent, but is a part, a fraction, of the parent. We give arbitrarily the name of parent to the larger fraction, which is commonly, also, the more highly specialized in structure and function. The detached part (in man) is a cell filled with organic matter in its least specialized form—protoplasm. The parent mass, however, besides a remainder of such undifferentiated cells, is largely made up of cells so highly specialized in function as to have lost their power of reproduction—a function belonging originally to all cells. A cell of the arm, for instance, if placed in the womb, would not develop into an infant, being incapable of assimilating the nutriment as there provided. But it does assimilate from the blood, and reproduces other cells like itself; *i. e.*, it retains its reproductive powers, but in a special line only. Among cells as among men, a special training disqualifies for any large variety of actions. Only in the testicle and ovary is the human protoplasm found in an unspecialized (and hence fully developable) form. The cells of the rest of the body, being devoted to special growths, are no longer equal to the general function of reproducing the entire man. This is limited to the cells thrown off from time to time from the male and female

generative organs. Theoretically, cells from the organs of either sex should be developable, and there are many indications that the human race was formerly hermaphroditic, as we know many animals and most plants now are. Herbert Spencer suggests an explanation of the necessity, at present, of commingling the contents of spermatc cells of two kinds—those of the ovum with those of the spermatozoon—in order to full development.

From what has been said in the foregoing pages, it is evident that so far as the parent is concerned, the act of reproduction ceases with the detachment of a developing cell from the parent mass. What follows is a story of nutrition. The cell has now a separate life.

There are many modes of nutrition :

I. There is no gestation. The detached cell is dismissed by the parent at the period of "ovulation" into the outer world, to find there as best it may the necessary conditions of warmth, moisture and nutriment.

II. There is partial gestation. The cell is dismissed surrounded by a store of nutriment, as in the eggs of birds.

III. Gestation is more or less complete. The cell is retained within the body of the parent, and there supplied with the condition of growth, till it is partially developed and can provide more or less perfectly for its wants.

There is an ascending series in which the apparatus for supplying the conditions of development, in connection with the parent, is rendered more and more complete, till man and the kangaroo are reached. The provision of a marsupium, or bag, in which the young are cared for after birth, seems to raise the last-mentioned animal, anatomically at least, above the *genus homo*, and all other similar mammalia.

In the human male there is no provision for the life of the detached cell. In the female there is; and it is on this provision that the difference of the sexes turns.

In the female, a part of the tube along which the cell is to pass to be voided, is enlarged, so as to form a vessel capable of containing it till a late period of its development. This vessel, the womb, supplies the necessary con-

ditions of warmth and moisture and a nutritive encompassing fluid, from which the cell may absorb and assimilate all that is needed for its growth.

CHRONIC CHLORAL POISONING.

By FRANK WOODSBURY, M.D.

Since 1869, when it was brought to the notice of the profession by Liebreich, chloral rapidly gained general favor. Standing as it does in the front rank of cerebral spinal sedatives, it is now almost universally employed, being, according to Fothergill, in conditions of sleeplessness due to vascular excitement, "the hypnotic *par excellence*," and is "far superior to opium." This and the other advantages of the internal administration of the drug, in acute mania, in convulsions, whether puerperal, hysterical, epileptic, or infantile, and most markedly in tetanus, and in alleviating the paroxysms of hydrophobia, its use in whooping cough and other nervous affections, having been frequently referred to in our discussions, are sufficiently known, and are familiar as household words. I would, however, ask the indulgence of this Society, while I invite its attention to some peculiar effects that have been observed after the long continued administration of this drug, in what has been considered ordinary medicinal doses. From the fact that death has occurred immediately after the administration of single large doses, and a sufficient number of such cases has been recorded to establish this fact, we are justified in making the assertion that chloral hydrate is capable, when introduced into the system, of causing death, as a direct effect of its administration. It is, however, to the effects of chloral short of the fatal result, from doses sufficient to produce decided toxic symptoms without determining the final cessation of the vital functions, that our attention may, perhaps not unprofitably, be directed this evening.

As to the fatal dose and its relation to the ordinary dose of chloral, there is a wide latitude observed in the expe-

rience and opinion of different individuals. Dr. Richardson, of London, says that 180 grains is a fatal dose, and that it would not be safe to give more than 120 grains in 24 hours, as the system cannot decompose and eliminate more than five or seven grains per hour. On the other hand, in the experience of members of this Society, this has been largely exceeded, not only without a bad result, but apparently with great benefit to the patient. And yet Dr. Fuller (*Lancet*, March, 1871) reports a case of death following the administration of 30 grains in a healthy young lady; and Dr. Schwaighofer, of Vienna, records (*Irish Hospital Gazette*, 1873) a similar result from the same dose, in a drunkard. Dr. E. F. Ingalls (*Chicago Medical Journal and Examiner*) reports a case of death in a healthy German woman following the administration of ten grains of the remedy, a similar dose having been administered an hour before without ill effects, and no other medicine having been given.

How can this be reconciled with the fact that more than once, in the treatment of delirium tremens, one full ounce has been given in the twenty-four hours, not only without danger, but with the best results?

Now, in these cases, the fault lies either with the drug or the individual. The statement may be made that an impure article had been used in the fatal cases, and that some of the secondary products of decomposition, being more noxious than the chloral itself, had caused death. The justice of this observation is acknowledged, and it may be accepted as a sufficient explanation for some of the cases, but others yet remain in which the same article had been given to other patients with only the ordinary effects; and we can safely assume that, as a rule, in practice every ordinary precaution is undoubtedly taken to obtain the medicine in a state of integrity. Moreover, in Europe it has been commonly prescribed in much larger doses, and almost uniformly without bad results. We have all met with patients who cannot take opium. In many cases there is, probably in like manner, a chloral idiosyncrasy, either natural or acquired; the latter class including persons suffering from such disorder of the nervous system, or

heart, as renders them peculiarly susceptible to the poisonous action of the drug. Fothergill points out the fact that in an anæmic condition of the nervous centres chloral is contra-indicated; and DaCosta advises caution in its administration, and remarks that "in cases of cardiac debility, and in dilation, or much obstruction of the heart, it is generally contra-indicated. (DaCosta, *Clinical Notes on Chloral*, *American Journal of Medical Science*, April, 1870.)

Without lingering upon this interesting question of the causes of such idiosyncrasy, it will doubtless be conceded that individual peculiarities render certain persons peculiarly susceptible to chloral, so that in a large number of patients we may reasonably expect to find a few in which unusual and alarming symptoms may follow the ordinary dose, as in the cases reported by Dr. Ingalls and Dr. Fuller. This is so well established that Dr. Wood (*Therapeutics and Materia Medica*, Second Edition, Phila., 1877, p. 326) says: "I think the practical deduction from these facts is that twenty grains is the highest safe dose of the remedy, that this dose should not be repeated oftener than once an hour, and after sixty grains has been taken, not for some hours, unless in very urgent cases."

I have been the more particular in establishing the ordinary medical dose of chloral because, in many of the cases reported, where this drug has been given for a length of time, it is merely stated that it was given in the usual dose. I have had under my notice several cases where the effects of chloral in these generally considered safe doses have been so much liked by the patients that they continued taking the prescription for months on their own responsibility. These cases, however, when in the male sex are so generally associated with an indulgence in alcoholic stimulants, as to render it a matter of uncertainty whether the nervous symptoms were produced by the chloral or the alcohol. In the following case, under the care of Dr. DaCosta, it was clearly shown that delirium tremens was directly produced by the chloral, no alcohol having been taken for several months previously.

Mr. A., thirty-five years of age, American, a man of fortune and indulgent in his habits, had been always a.

free liver. Without preparation he was induced to absolutely resign all alcoholic stimulants. Shortly afterward he sought medical advice for sleeplessness and nervousness. He was ordered chloral, and found it very soothing in doses of twenty or thirty grains, at night. Being pleased with the effect of the prescription he discontinued his visits to Dr. DaCosta, and of his own accord had the medicine repeatedly renewed, gradually increasing the frequency and the amount of the dose, so that he constantly took from a drachm to a drachm and a half daily. He kept up this practice for several months, all the time being free from medical supervision. Although he was remonstrated with by several members of his family on this new indulgence, he considered the remedy not injurious to him, and as he liked the calming effects from it he could not be dissuaded from its use. After continuing the chloral thus for a period not far short of four months, he lessened the dose and then stopped, rather abruptly. The consequence was that his weakened nervous system showed signs of great disturbance and an attack of characteristic delirium tremens supervened, with the wildest fancies and great sleeplessness. The pulse was feeble and moderately accelerated; the first sound of the heart was weak. There was general prostration of the muscular system, and much tendency to sweating. No odor of chloroform was detected in his breath, and of course, no alcohol. He complained of nausea and loss of appetite; his tongue was coated. One of the prominent features in the case was a disposition to leave his bed and walk about the room, while the muscular weakness was strikingly shown in the fact that he was very soon fatigued. However, it required a man to watch over him constantly to prevent his leaving the bed and trying to escape from his room. The case perfectly recovered, though slowly, under the use of small doses of morphine, a nourishing diet, and a moderate amount of alcoholic stimulants.

It is not my intention to make any comments upon this interesting case, but simply to present it before the Society in the hope of contrasting it with the experience of others. I may state, however, that a somewhat similar

case of delirium tremens has been reported by Dr. Elliot, (*Lancet*, 1853, I, 754.)

On the other hand a member of this Society, Dr. Laurence Turnbull, in his recent work on "Anæsthesia," reports a case in which he "directed the employment of chloral hydrate in medicinal doses for one year, as a sedative and narcotic, and the only disagreeable result complained of by the patient was that it caused a hot feeling, with free perspiration, as if she were in a hot bath; it was withdrawn at the end of that time without producing the least disturbance of the brain, inflammation of the skin, or loss of memory or intelligence," and he inclines to the opinion that "other causes besides the hydrate of chloral may have produced some of the recorded results."—*Medical and Surgical Reporter*.

CARDIAC EMBOLISM FOLLOWING DELIVERY.

BY JOHN L. SULLIVAN, M. D., MALDEN.

Mrs. C. F. B., American, in good circumstances, was delivered of her first child, a vigorous female, weighing eight pounds, on the evening of March 6th. Previous to her confinement I saw the lady once, when I gathered the following particulars: Parents both living and in good health. Her own health during childhood and before marriage usually good. When quite young she had typhoid fever, a mild form, from which she recovered without drawback. Several years ago, after violent mental emotion, was attacked with distressing palpitation, which soon ceased, and which did not prevent her attending a ball given on the same night, and dancing every "set" without inconvenience. Since then no cardiac symptoms of which she was aware, and none now discoverable by auscultation. At times troubled with leucorrhœa. During gestation health seemed to improve, "pregnancy agreeing with her," had experienced, however, especially during the latter months, a sensation of "inward heat," as she described it, which enabled her to endure without discom-

fort a lower temperature than was agreeable to other persons, and to dispense with warming the rooms which she occupied.

The labor was in all respects natural, and easier than falls to the lot of most women with the first child. Head presentation, right occipito-anterior. Duration, from the earliest indication of uterine action to the expulsion of the placenta, ten hours. A few moments after the birth of the child, the after-birth, expedited by external pressure, came away; the uterus contracted immediately to the typical cricket-ball size and "feel," so gratifying to the accoucheur; and when, half an hour later, I retired, both mother and child seemed "as well as could be expected."

March 7th. This morning Mrs. B. was reported by the nurse to have "flowed more than usual during the night," a symptom which could not be attributed to relaxation of the womb, as that organ was found, on examination, in the same state of firm contraction it had assumed the previous night. Opium and ergot were ordered in moderate doses every third hour.

March 8th. This forenoon, on attempting to sit up in bed to pass water, the patient voided a considerable quantity of dark coagular, which had accumulated in the vagina, and for a few moments afterwards was faint. On my arrival, however, I found her quite recovered, that is, in good spirits, neither blanched in countenance nor presenting any symptoms of exhaustion. There was no subsequent hæmorrhage, although the opium and ergot were omitted, and the lochia henceforward continued scanty in quantity and greenish in color; in short, quite normal. The voiding of the coagula and the nurse's estimate of the amount of blood lost during the night following delivery are recorded, not as important in themselves, but as forming part of the clinical history of an unfortunate case.

March 9th. Very comfortable; pulse 80; temperature 99° F.; appetite good; bowels open; urine copious and of good color.

March 10th. I shared to-day the patient's disappointment (she was anxious to suckle her infant) not to find some evidence of activity in the breasts, which were more flaccid than yesterday. Other symptoms favorable.

March 11th. The breasts are still quite soft. This p. m. Mrs. B. complained of a disagreeable sensation suddenly felt in the inside of the left leg and thigh, which she described as "something between a numbness and a chilliness." This sensation speedily vanished, leaving behind it no trace of pain, swelling, redness, heat, or tenderness on pressure. And at no subsequent period in the progress of the case could any of these symptoms be detected, although inquiries were made, and the limb, including the groin, examined in its entire length at each visit. One hour after the above-described attack she was seized with violent and distressing palpitation resembling that experienced on the afternoon preceding the fall. Thereupon she burst into a paroxysm of hysterical weeping and sobbing. At this moment I entered the room. "Oh, doctor," she exclaimed, "I have that heart trouble again!" I was not long in ascertaining that something unusual had happened, for the heart was indeed beating with fearful rapidity, unlike anything I had ever before observed, attended with a heaving impulse in the præcordial region visible through the clothing. It was impossible to count the pulse at the wrist, or to determine its frequency by auscultation. It could not have been, however, less than 200 per minute. Both sounds of the heart were distinctly audible, and were accompanied with a bruit or whiff which suggested the puff of a locomotive engine at full speed. The respiration was somewhat quickened (32 per minute), but not in proportion to the pulse. Moderate difficulty of breathing was complained of, but there was no perceptible lividity of the lips or face, and the expression was not in the least anxious or distressed, so that as soon as the patient's tears were dried, and she had recovered her wonted composure, she did not *look* ill. Temperature 101°. Urine drawn by the catheter and tested for albumen, etc., gave negative results.

A mixture containing tr. castor, tr. digitalis, with spirits of nitric and sulphuric ether, was directed to be taken hourly.

March 12th. This morning Mrs. B. welcomed me with a cheerful smile, and in accents equally cheerful informed me that she was much better,—a favorable impression

which I was unable to corroborate, her condition having certainly [not improved. On the contrary, the pulse had become weaker, and, if possible, more rapid; the temperature had risen to 103° , and the respiration to 40 per minute. Since my last visit she had assumed the left lateral posture (with the knees drawn up), from which she could not be moved on account of the increased difficulty of breathing induced by the slightest change in her position. Notwithstanding this ominous circumstance she insisted that she had been greatly relieved by her medicine, predicted a speedy recovery, and had evidently no suspicion of impending danger. And indeed her countenance was so animated and cheerful, her expression so natural, and her general appearance so strikingly in contrast with the apparent gravity of her other symptoms that it was difficult to accept the conclusion that death was inevitable, and at hand. Still, I felt it a duty to communicate to her friends my convictions that the case was one of cardiac embolism, which would prove fatal in a few days at furthest, possibly in a few hours.

March 13th. At my request Dr. Minot saw the patient to-day. After examining the case with great care, and fully recognizing its alarming features, he ventured to express a faint hope, unhappily destined to disappointment, that we might have to do not with embolism, but with hysteria simulating that condition. Agreeably to his suggestion, the digitalis was continued in larger doses, and the same nourishing and sustaining measures that had been employed from the beginning were still persevered with. Temperature 106.5° ; respiration 48-52; pulse as heretofore.

March 14th. Much worse; left knee swollen and painful; one-half of right breast perfectly soft and flaccid, the other half swollen, livid, and tense; the entire left breast in the same swollen condition; tongue swollen to four times its natural size, hard, very painful, and protruded with great difficulty; deglutition well-nigh impossible; voice inaudible; orthopnœa; failing pulse; restlessness; jactitation. Death occurred at six o'clock P.M., consciousness being retained to the last moment.

An autopsy was refused.—*Boston Med. and Surg. Journal*—

Editorial.

THE YELLOW FEVER COMMISSION.

It will be remembered that in September last Dr. Woodworth, Surgeon General of Marine Hospital Service, appointed a commission to investigate the origin and behavior of yellow fever poison. Secular papers now announce the termination of their labors, and the conclusions arrived at. Nothing new seems to have been discovered, and no startling theory is to be promulgated—the same old doctrine is to be continued. Newspapers say the commission declare yellow fever exotic; that it was certainly imported into New Orleans the past summer, and carried up the river. Further, that the only safety to this country lies in efficient national quarantine.

Well, this importation and transportation theory has been adopted by a majority of those concerned in such matters for a century past. Certainly the creator of this commission advocated the same theory in a recent publication, and doubtless his appointees were known to agree with him. Commissions, therefore, appointed in this way, may, from honest convictions, reflect the opinions of the creator.

Until their report has been made, of course, the reasons for their opinions are unknown; but certain facts, of which we presume they were informed, will subject their reputed decision to just criticism.

In the next number of this journal, with the commission's report before us, we shall make such comments as the importance of this subject demands. In the meantime, we must be allowed to indulge and express the hope that the people of yellow fever districts will not make up their minds to rely for protection against the disease, on "national quarantine," however strictly enforced by the Government of the United States. Thousands of valuable lives have been lost by relying upon quarantine and remaining where they imbibe daily the most malignant yel-

low fever malaria, till mortally stricken with the disease. Not only so, but this dependence upon the prevention of importation destroys all effort to abate prolific cause of the fever in their immediate neighborhood, such as marshes, pools, etc., filled by overflow of streams.

Common decency and every feeling of humanity is outraged by the barbarous system of inland quarantine practiced against refugees from infected districts. None but panic-stricken, selfish alarmists can read with composure the treatment of homeless wanderers in many parts of the country recently.

If, as report has it, the expenses of the commission are paid by contribution, prompted by the humane instincts of a philanthropic female, and the work of investigation, undertaken at the risk of life by the friends of our race, we are constrained to cry out, in view of the reputed report, "Save us from our friends."

THE INTERNATIONAL DECIMAL SYSTEM OF WEIGHTS AND MEASURES.

We predict that the decennial convention of 1880, for revision of the United States Pharmacopœia, will adopt this system as the American standard. In view of this fact it is certainly advisable to become familiar with the system at our leisure. Aside from any necessity on this account, convenience demands the adoption of this easy and rational standard. We already use it in federal money, and find such decided advantages over that of sterling computation of money, that every one must see at once the benefit of a change from the troy ounce, and its divisions into drachms, scruples and grains to the gram and decimals above and below that unit. In practice it is equally simple and easy as the dollar unit, with decidollar, or dime, and centidollar, or cent.

All that is necessary for the apothecary to buy in order to fill prescriptions written on this system, is a set of gram weights and a gram measure about the size of our present two-ounce graduate measure. The scales now used will, of course, answer for weighing grams as well as grains.

The only trouble in the whole matter arises in the want of experience in the relative value of the gram in grains. In order to overcome this difficulty very soon, it is only necessary to keep in view the number of grains that correspond to the unit or gram weight, the number of inches in a meter and the number of pints in a liter, then the decimals of these units will soon become familiar, so that any amount which we know in grains, inches, minims or fluidounces, can be readily written in grams, liters or meters.

For the convenience of the apothecary, the system is still further simplified. The term gram is used for the weight of solids and measure of liquids. By some writers the term cubic centimeter is used in place of gram for the measure of liquids, because one cubic centimeter (a little more than one-third of an inch square) of water at 60° weighs fifteen grains; but doubtless the term gram will be generally adopted. Furthermore, weights and measures will be generally reckoned by the unit and hundredths. Instead of writing or saying one, two or three decigrams, we say ten, twenty or thirty centigrams, as we say ten, twenty or thirty cents in counting money.

As will be seen in the table below, about fifteen grains make the equivalent of a gram weight, and fifteen drops or minims make the equivalent of a gram measure. Four grams, therefore, by weight and measure, correspond pretty nearly with our present drachm and fluidrachm. If we wish to prescribe about sixty grains or a troy drachm of a solid article, we write, 4 gm. If sixty drops or a fluidrachm of liquid is desired, it may be expressed by the same symbol, 4 gm. The solid will be made to balance a four-gram weight, and the liquid will be made to fill the graduate measure to the line marked 4 grams.

The only difference in counting federal money and metric weights and measures is, that in the former the symbol is placed before the number, thus—\$2.50. In the latter the symbol follows, thus—2.50 gm.

R.—Pulv. opii,	. . .	6 cg, or 0.06 gm=gr.j.
Blue mass,	. . .	30 cg, or 0.30 gm=gr.v.
Tannin,	. . .	24 cg, or 0.24 gm=gr.jv.

M. and make four pills.

R.—Spt. nitrous ether, . . . 16 gm=f3jv.
 Syrup squills, . . . 8 gm=f3ij.
 Paregoric . . . 32 gm=f3j.

Mix.

TABLE OF INTERNATIONAL WEIGHTS AND MEASURES FOR
 APOTHECARIES.

10 milligrams (mg),	1 centigram (cg)=gr.	0.15=gtt.	0.15
10 centigrams,	1 decigram (dg)=gr.	1.54=gtt.	1.54
10 decigrams,	1 GRAM (gm)=gr.	15.43=gtt.	15.43
10 grams,	1 dekagram (Dg)=	3 2.57= f3	2.57
10 dekagrams,	1 hectogram (Hg)=	3 3.21= f3	3.21
10 hectograms,	1 kilogram (Kg)=	3 32.14= f3	32.14

AMERICAN PHARMACEUTICAL ASSOCIATION.

The meeting of this Association for the year 1877 was held in Toronto, Canada, and adjourned to meet in Atlanta on the 2nd of September, 1878. Owing to the yellow fever scourge in the South-west, however, the meeting at that time was postponed to the 26th of November of the present year, at which time it will be held in this city.

A good attendance is expected, and Atlanta druggists and the citizens generally will welcome visitors on the occasion with their usual efforts to make comfortable and happy strangers in our midst. We hope physicians of the city and surrounding country will feel an interest in the deliberations of this useful association.

BIBLIOGRAPHICAL.

A CLINICAL HISTORY OF THE MEDICAL AND SURGICAL DISEASES ON WOMEN. By Robert Barnes, M.D., London, Censor of the Royal College of Physicians, etc. Second American, from the second and revised London edition, with one hundred and eighty-one illustrations, Philadelphia: Henry C. Lea. 1878.

While this standard and popular work gives the general literature of the subjects discussed, there are special practical suggestions which will be found adapted to the wants of the general practitioner as well as the specialist.

The illustrations are numerous and convey very exact representations of healthy and diseased parts as well as the appliances by which treatment is afforded.

The edition before us will doubtless prove acceptable to the profession.

ILLUSTRIRTE VIERTELJAHRSSCHRIFT DER ÄRZTLICHEN POLYTECHNICK,"
Bern: J. Delp's Buchhandlung.

We have received from the publisher the first number of the above journal, which is a decided novelty in medical literature. It purposes to give illustrations and descriptions of all new apparatus used in diagnosis and treatment. Among the appliances and instruments figured in the present number are: Galante's rubber extension apparatus; Badal's optometer; Zaufal's instruments for operating in the nasal passages, and a variety of others.

We are indebted to Dr. John T. Nagle, Deputy Register of Records of New York, for a copy of the *City Record*, containing the annual summary of the Bureau of Vital Statistics for 1877. From this valuable report we learn that the total mortality of New York City during last year was 26,203, representing an annual death-rate of 24.50 per thousand. There were 148 suicides, 123 of which were males and 25 females; of the various nationalities, Germany furnished 59, or over one-third.

EXCERPTA.

CHLORAL IN DYSENTERY.—Dr. Wm. L. Newell, in the *Phila. Med. Times*: A weak solution of that valuable medicine on chronic ulcers manifested such favorable results in my hands that I conceived the idea of using it locally on the inflamed and congested bowel in dysentery. The first case had been under the usual treatment for three days without relief. The child, aged eleven, was tormented with thirst, pain and tenesmus, with twenty-five or thirty dejections in twenty-four hours. In connection

with other treatment I ordered five grains of chlor. hyd., dissolved in two ounces of starch gruel, thrown up the bowel with considerable force from a hard rubber syringe. It remained three hours, during which the child slept. Many of the other symptoms were modified and the injection was repeated which remained seven hours, when it came away with some fecal matter, but without tenesmus. The child asked for food, which was given in the form of mutton tea, thickened with boiled wheat flour. All treatment ceased in forty-eight hours from the first enema, four being given in all. The case seemed so satisfactory that I mentioned it to my confrere, Dr. J. S. Whitaker, who has pursued the same treatment with the most happy results in every case, aborting the disease within a few hours. I may mention that he used ten grains instead of five with a lady, aged twenty-five years, who had twenty or thirty calls in twenty-four hours, with complete repose for eight consecutive hours, with permanent abatement of all other symptoms, without other treatment.—*The Medical Brief*.

ACUTE BRIGHT'S DISEASE CURED BY JABORANDI.—Prof. J. M. DaCosta, in the *Hospital Gazette*, publishes a clinical lecture, in the course of which he records a case of acute nephritis cured by this drug. The fluid extract of jaborandi was used in drachm doses three times daily. This dose produced excessive diuresis and diaphoresis. At the expiration of five days all symptoms of the disease had disappeared. The woman was left in an extremely prostrated condition, to counteract which *dialyzed* iron was administered both internally and hypodermically.—*The Medical Brief*.

VENESECTON AS AN ANTI-HEMORRHAGIC.—Prof. Chauffard is of opinion (*Abeille Medicale*) that at the present time venesection is too much neglected, and especially in cases where it is desirable to open up another channel for blood which tends to become effused at the surface of an organ. He pointed out a case of hæmoptysis at the Necker, occurring in a robust young man who was almost pleth-

oric, a stone-cutter by trade, and therefore of an occupation dangerous to the pulmonary organs. A very abundant hæmoptysis had appeared suddenly three days before his admission, and still continued. Prof. Chauffard having ascertained that no serious lesion existed, ordered venesection to the extent of 500 grammes, and the cure was immediate and complete. This is the reverse of what is met with when a normal hemorrhage which is suppressed gives rise to another in its place. It is not only an accidental hemorrhage which may be thus arrested, but also the hemorrhagic molimen when it becomes dangerous. Thus one of the most important applications of venesection in practice is for the prevention of catamenial congestions persisting after impregnation, and leading to the detachment of the germ—a cause of sterility which is frequently misunderstood. A case in point is that of a lady who, during a period of ten years, repaired to every resort reputed as useful for the prevention of sterility. She was a stout and plethoric person, with very abundant menstruation, which appeared at regular periods. In neither her nor in her husband was there any cause preventive of impregnation. This had probably taken place, but had been rendered invalid by reason of the abundant periodical discharge which had continued. The day before the expected period a small quantity of blood was taken, and then again the next day; and at the end of nine months the lady had her first child, which was followed by others. This cause of sterility, especially in persons of generous blood, is by no means rare.—*Med. Times and Gazette*, October 12, 1878, from *Presse Belge*, Sept. 29.

QUESTIONS OF MATERNAL INFLUENCE.—I take from the *Michigan Medical News* the following extract, which I do not think conveys the meaning I intended it should, and, as a consequence, does me injustice. “The *Medical and Surgical Reporter* says: ‘Financial doctors say the cause of the hard times is lack of confidence.’ This was not the matter with a husband down South, whom Dr. R. L. Payne tells about in his address as President of the North Carolina Medical Association. He was speaking of ‘moth-

er's marks' and gave this example: 'A black child was born to a white married woman in my county, and she accounted to her husband for its very dusky hue by assuring him that she had been terribly frightened by a negro man, who had presented himself before her in a half nude state. The husband was satisfied, and is still happy.'

The quotation is probably correct, but I certainly intended to have written the last sentence thus: *The husband was satisfied, and is still happy!!* And as the example was given immediately after quoting the case of Maria Theresa, I intended to convey the idea that although I was a firm believer in "mother's marks," there might possibly be another way of accounting for the *color* in both instances, as well as in the case in Virginia, in which the child was black because the mother ate black walnuts!—R. L. PAYNE, M.D., in *Med. and Surg. Reporter*.

THE THERMAL DEATH POINT OF SEPTIC ORGANISMS.—Some very careful experiments on this subject have lately been rehearsed to the Royal Society by the Rev. W. N. Dalinger. He found septic organisms living after exposure to a heat of 250° Fahrenheit. He proceeds in his narrative:

I followed this with four more experiments, separately and successively made. Two of them were at a temperature of 248°, and two at 250° F. In both of the former, at the end of nine or ten hours, the complete organism in full vigor could be seen; and in one of the cases it was discovered still in the condition shown at Fig. 20, Plate 2, and watched until the organisms had attained the condition indicated in Fig. 24, Plate 2.

But in the two latter instances (heated up to 250°) the living form did not appear during the six days following, although repeatedly looked for.

I concluded, therefore, that the temperature of 250° F. was the limit of endurance which the spore of this form could bear by this method of heating.

Boiling water, therefore, would not destroy these germs. *Cin. Lancet and Clinic.*

ICTERIC URINE.—When jaundice is not well marked, a great assistance is derivable from examination of the urine. The following three tests are employed by Prof. Hardy before his clinical class with marked success: 1. *Chloroform*: When this is poured upon normal urine, it sinks by reason of its great density to the bottom of the test-glass, exhibiting there a crystalline transparency. If we pour it on the icteric urine, and, having shaken the test-tube plugged by the thumb, leave it quiet for a moment, the chloroform deposit contrasts strongly by its dull color with the yellow of the superficial layers—the yellow color being deeper in proportion to the quantity of bile in the urine. It is an excellent test of icteric urine. 2. *Iodine*: When the iodine is poured upon the icteric urine the mixture must not be shaken. At the upper part of the tube three very distinct colors are observable—the first layer formed by the tincture is violet; below this is a kind of diaphragm of a sea-green color; and the third layer, consisting of the urine, and occupying the lowest part, is yellow. 3. *Nitric Acid*: When this agent has been poured in, the mixture, after shaking, assumes a bottle-green color, passing into an olive. This is an entirely special and very characteristic appearance.—*Med. Times and Gaz.*, Sept. 21, 1878, from *Rev. de Therap.*, Aug. 15.

PESSARIES.—In regard to the use of pessaries: If, on making conjoined manipulation, or passing the uterine probe, the fundus does not remain in position after an instrument of this kind has been introduced, take it out at once; and if you cannot get the fundus into its proper place, then do not put in any pessary at all. At the end of forty-eight hours, or at all events, within a very few days after the introduction of the pessary, you should always make an examination, and if you find that it is not holding the uterus up in good position, you should remove it and put in another. If you cannot find one that will do this properly, it is a great deal better that the patient should be left without any instrument whatever in her vagina.—*Med. and Surg. Reporter*.

THE TREATMENT OF DIARRHŒA BY OXIDE OF ZINC.—Dr. Jacquier has followed, in the service of Dr. Bonamy, at Nantes, the good effects of the employment of oxide of zinc in diarrhœa. The formula which he has employed is the following: Oxide of zinc, 54 grains: bicarbonate of soda, $7\frac{1}{2}$ grains; in four packets, one to be taken every six hours. In all the cases which he observed, oxide of zinc produced rapid cure of diarrhœa. In fourteen cases observed by Puygautier, the cure was even more rapid, since in only one case were three doses of the medicine required. The results are considered to have been more satisfactory, inasmuch as in several cases the malady had endured from one to many months, and other methods of treatment had not produced any improvement. Thus he concludes that, although by no means to be held as exclusive treatment, the employment of oxide of zinc deserves to be more generally known as useful in diarrhœa.—*British Medical Journal*, Sept. 28, 1878.

THE ACTION OF THE TINCTURE OF IODINE UPON THE UTERINE NECK.—The tincture of iodine does not act the same upon the healthy neck and on the diseased one. If the tissues of the neck are healthy, the coloration produced by its application is a uniform dark brown; if there is the least ulceration, there is produced a yellowish coloration, in contrast to the brown of the neighboring parts. Every granulation or vegetation becomes yellow and not brown. After the application of the actual cautery, which M. Laboulbene strongly recommends for ulceration of the neck, the cauterized part only is made yellow by the tincture so long as it is not heated. After cure the neck gradually becomes brown on the application of the tincture.

If the neck is large, without being ulcerated, and if the tincture of iodine brings to view little yellowish spots, we must suspect a neoplasm, and expect in a short time to have ulceration of the places where the tissue is colored. It is easy to see the utility of this application in the diagnosis of uterine affections.—*La France Medicale*.

ATLANTA Medical and Surgical Journal.

VOL. XVI.] DECEMBER—1878. [No. 9

Original Communications.

AMERICAN PHARMACEUTICAL ASSOCIATION— ANNUAL ADDRESS OF PRESIDENT SAUNDERS.

Delivered in Concordia Hall, Atlanta, Nov. 26, 1878.

In consequence of the general alarm which prevailed in the whole of the United States and Canada on account of the rapid spread of yellow fever in some of the towns and cities along the Mississippi during the months of July and August, it was feared that a successful meeting of our Association could not be held here at the time originally fixed, namely, the first week in September, and hence it was deemed desirable to postpone it until now. That dire scourge having disappeared even in the worst affected districts, the impediments to travel have been removed, commerce is assuming her wonted busy aspect, and we meet once more together under happy auspices. Our annual gatherings are always seasons of enjoyment, but it seems to me that on this occasion there is promise of more than the usual quota of pleasure in store for us. To many of us, especially to those who live so far north as I do, this Southern country is a new world. We found a pleasing novelty in watching the changing aspects of nature in our journey southward, as many trees and shrubs long familiar, gave place to forms new and strange; and had we been privileged to visit here earlier in the season, before nature had lost her summer charms, our pleasure

would have been greatly enhanced in beholding the beautiful plants and flowers which adorn the fields and woods, the feathered songsters which fill the groves with melody, and the brilliant insects which flutter in the sunshine.

Our pleasures on such occasions as these are of a mixed character. We are happy in our work. Loyalty to the interests of the Association, coupled with a strong desire to have it fulfill its mission in the advancement of the best interests of the pharmacist; the promotion of right and the suppression of wrong-doing in all the departments in which we are engaged—this, gentlemen, is a motive which has been the magnet drawing many so far South; and most of us would be happy anywhere, with almost any sort of surroundings, in realizing the accomplishment of these higher purposes. Pharmacists can afford to be upright, truthful and honest in their business, to maintain their integrity, notwithstanding the temptations by which they are beset; and if I know anything of the aims of this Association, they are to make us all better men as well as better pharmacists.

The more strictly scientific aspects of our meeting also delight many hearts. The prospect of acquiring new ideas and new light upon old methods of thought and old processes, around which, perhaps, have clustered difficulties which we hoped to have removed. Besides which, there is the social element which we can all appreciate. The presence of our friends makes us happy. There is such a charm in the smile of old familiar faces, and the hearty shake of hands, and the warmer greetings swelling from the hearts of those whom a year or years have separated, give a thrill of pleasure; and as long as the members of this Association continue to be so thoroughly happy in each other's society, and so emulous of promoting each other's welfare, these social features in our annual gatherings will always secure an attendance. True, we miss familiar faces as one after another of our members is called away from among us; but we are buoyed with the hope of meeting them again in that "beautiful land beyond the river."

The itinerant character of these gatherings offers many advantages to our members. The year before last we were charmed with our entertainment in Philadelphia, when that great Centennial Exhibition lent an interest to our meetings such as we never had before. Last year you were the recipients of the hospitality of your Northern friends in the Dominion of her Majesty in Canada; now we move more than two thousand miles south to meet our Southern and other friends in Georgia. Thus the pharmacist, closely pent up as he usually is, behind his counter or in his office during the greater part of the year, has some good opportunities given him of acquainting himself with the extent and resources of his country, the products of the soil, its geological strata, the character of its fauna and flora, and last but not least, of making friends everywhere.

But I must leave these pleasing generalities, and try and present you with something a little more substantial. It is expected, I believe, of your retiring President, that he should, in the annual address which closes his official labors, endeavor to elucidate or bring together some scientific facts bearing on or related to pharmacy, and I have thought that it might perhaps be profitable for us to look for awhile at the state of pharmacy at the time of the discovery of America, and to note in some detail how the art of medicine has been indebted to the New World for many of its most valued officinal articles.

When, on the 14th day of August, A.D., 1492, Columbus set sail on his ever memorable voyage, he left behind him a very different Europe from that of the present day. The manners of the people were little less than barbarous, and history at this time chiefly records a series of treasons, usurpations, murders and massacres. Even the kings and courts had very narrow and selfish views, seldom looking beyond present advantages. The elegance and purity of the Latin tongue was then the highest and almost the only point of a scholar's ambition. Mathematical learning was little valued or cultivated. The true system of the heavens was not dreamt of; there was no knowledge at all of the real form of the earth, and in general, the ideas of mankind did not extend beyond their

sensible horizon. Just about this time there was an extraordinary coincidence of events. Closely associated with the discovery of America was the invention of printing, the improvement of navigation, the revival of ancient learning, the reformation and the discovery of the proper method of preparing gun powder so as to make it effective in warfare: events which conspired to entirely change the face of Europe. Up to this time, and for a long period antecedent, the science of medicine had made but little progress; indeed, scarcely any advancement seemed to have been made from the time of Hippocrates, Galen and Celsus, and the same remark will also apply with equal force to a long period subsequent. The works of Celsus in many respects read more modern than do those of the learned Dr. Riverius, physician to the King of France, who obtained great reputation for his medical skill and writings in the early part of the seventeenth century. Among the different classes of medicines referred to by these authors, take as an illustration, anodynes. We find in Celsus prominence given to opium, concentrated decoction of poppies, castor, myrrh, pepper, henbane and hemlock seeds. In Riverius, we have opium also, but associated with such things as decoction of borage, fumitory and cichory, and much stress laid on accompanying external applications, such as marsh mallow root, cow's milk, the excrement of cows and sheep, the yolk of an egg, a live puppy, etc. There were some curious methods of compounding in those days. One of the chapters in Dr. Riverius' *Universal Body of Physic*, is headed thus: "Of the Decoction of an old Cock," wherein it defines that there are two forms of this decoction in use; one he calls an altering decoction, which he says "is used not seldom in chronical diseases, as hypochondriacal melancholy, asthmas, etc.," the other a purging decoction. The formula prescribes that the old fowl after being wearied with blows and running before he is killed, is to be dressed and stuffed with a mixture of bruised roots and seeds, and then boiled until the flesh be separated from the bones, when the liquid, after being strained, is ready for use. Fancy one of our more plethoric Pharmacists of the present day

with this prescription in hand, having carefully selected a venerable male representative of the *Gallus banckhira*, proceeds to vigorously pursue the unfortunate creature around a small city backyard on a hot summer day, with stick in hand, dealing careful blows so as to ensure that amount of weariness in the victim so necessary to the virtues of the compound, and then after the proper stuffing, watching the long process of ebullition until the leathery structure becomes tender. One experience of this sort would, we think, reconcile him to the most composite of compounds of the present day.

The list of vegetable medicines at that time was large. In 1710 appeared Salmon's English Herbal, a ponderous quarto of over 1,300 pages, profusely illustrated, in which there are described 752 herbs of English growth, including almost every variety of wild and cultivated plants and shrubs then growing in Britain, and to most of them are ascribed virtues of an astonishing character. As a specimen, take the common garden sage. This is said to be "hot and dry in the third degree, astringent, anodyne, carminative, digestive, discussive, diuretick and traumatick, cephalick, neurotick, stomachick, hysterick, anthrictick, emmenagogick, sudorifick, alexipharmick and analectick." It is said to be "good against a vertigo, lethargy, headache from a cold cause, palsie, convulsions, spitting blood, weakness of the nerves, poison, the bitings of serpents and other venomous creatures, the plague and other malarial and pestilential diseases, catarrhs, rheumatisms, etc." Some idea may be formed as to what is embraced in the *et cetera* by reading the succeeding pages, where details of the various preparations of this herb are given and their wonderful properties dwelt on. The preparations are: 1st, The green leaves; 2d, The juice; 3d, The essence; 4th, An infusion in wine or water; 5th, A powder of the leaves; 6th, An oil or ointment; 7th, A cataplasm; 8th, Pills; 9th, A gargarism; 10th, A distilled water; 11th, A spirituous tincture; 12th, An acid tincture; 13th, An oily tincture; 14th, A spirit; 15th, A distilled oil; 16th, The potestates or powers; 17th, An elixir, and 18th, A conserve of the flowers.

The animal remedies of the same period might be reckoned by the hundred, for even as late as 1730 the second edition of the Edinburgh Pharmacopœia contained no less than 84 of them. This second edition claimed to be a great improvement on the first, for in the preface we are told that it differs from the former edition in that "some things are left out as not differing from others in virtue, or as having been introduced by the superstition or credulity of antiquity. In this edition there are included four hundred and seventy-five vegetable remedies, only ninety of which are now officinal, and out of the total number there were but fourteen remedies of American growth. The animal substances in the same work numbered 84, only thirteen of which are now retained, and of these, two are used almost exclusively as perfumes. The mineral preparations numbered fifty-seven. Many tinctures were added in this edition, a class of remedies just then coming into use, and said to be generally acceptable to the patient by the agreeable smallness of their dose. The doses of medicines at that time were very large, a quarter of a pint was a common sized dose, a wineglassful a rather small one. Of tinctures there were twenty-six in all, also six elixirs and two wines—wine of ipecac and wine of millepedes. The method of preparing the latter was as follows: Take 300 live millepedes, bruise them a little, and pour thereon a pint of Rhenish wine; let them infuse for a night and afterwards press out the wine. This the authors remark, "is a commodious way of obtaining the virtues of the millepedes, and thus they may be exhibited to great advantage." Among the preparations there are also 17 distilled waters, to which list, although not distilled, is added frog spawn water, which is prepared by hanging any quantity of frog spawn in a bag and collecting the water which gradually drips from it. There are also 11 compound waters, 3 spirits, 8 infusions, 4 acetums, 12 decoctions, 28 syrups, 5 oxymels, 4 jellies, 5 succus, 2 conserves, 3 lozenges, 16 powders, 15 electuaries, 7 hohocks, 18 pills, 13 troches, 10 oils, 4 balsams, 25 ointments, 20 plasters, 27 distilled oils and 14 extracts.

Late in the seventeenth century Joseph Donatus, a

physician of Marseilles, a lover of botany, was sent to America by the French King "to promote botanic knowledge." He brought home with him the seeds of many scarce and curious plants, some of which were said to possess wonderful virtues. In "Pomet's History of Drugs," published in 1701, a list of these articles is printed, numbering one hundred and twenty-one, nearly all of them designated by Indian names, with a short description appended, but of such a character as would puzzle the highest botanical authorities to divine what was meant by them. The following will serve as examples: "Bamatu, with five leaves, a tree that is crooked with a pear leaf and a purple bell-flower. Macenilla, a venomous and milky tree with a sweet fruit like an apple, which the Indians poison arrows with. Mandubi, an American four-leaved plant with a yellow flower. Tobocora, a thorny, venomous sea-tree with a double round leaf and berries turned up with little horns, including in 'em a sort of flat agat like stones."

We can scarcely appreciate the difficulties which workers in all departments of natural sciences labored under before the immortal Linnæus introduced the binominal system of nomenclature. Previous to this a short description, or else some prominent or striking feature in connection with the object referred to, formed a necessary part of the name. For instance, the English lavender, which we now know under the name of *lavandula vera*, was then referred to as "a small plant which botanists call spicative *lavandula mas*, vel *nardus Italica*, aut *pseudo-nardus*, which signifies: Spike, male lavender, Italian or bastard nard. Another example, *gentiana lutea* was then known to science as *gentiana vulgaris major*, *ellebori albi folio*, the larger common gentian with the white hellebore leaf. Burdened with such a cumbrous incubus as this, it is no wonder that natural science made so little progress.

At this early period the business of supplying the public with medicines was divided between two classes of dealers, the druggists and the herbsellers. The former devoted their attention to the drugs from foreign sources

and the preparations to be made from these as well as from European herbs, while the latter collected herbs and sold them at wholesale to the druggists for manufacturing purposes, and at retail to the public at large. The character of the general dealers in drugs and chemicals was far below what it is at present. There were no pharmaceutical associations then with the object of disseminating information, and no desire among pharmacists to enlighten their fellow-laborers. On the contrary every little discovery in the way of improvement was guarded with the most zealous secrecy for fear that some competitor might share in the advantages which it conferred; indeed, men seemed to have the idea that they had a sort of patent right to the results of every advance they might make in the knowledge of their business and the mysteries of the trade were handed down from father to son with the most scrupulous care as things never intended for the light. In 1758 was published a work by an anonymous author, which must have made some stir among the pharmacists of that period, as it exposed the evil practices of many and made known a number of processes and formulæ hitherto kept secret. It was entitled, "The Elaboratory Laid Open, or the Secrets of Modern Chemistry and Pharmacy Revealed." From the revelations here made it is evident that at this early period the iniquitous practice of adulteration permeated all departments, and that even among chemical substances there was scarcely one of which there was not a true and fictitious article in the market. The wholesale dealers and manufacturers appear to have been very unscrupulous, and to have imposed upon the retailers, who placed confidence in them, in every way they could, while the retail pharmacists, instead of making their own preparations after the standard formulæ, were content to buy everything their customers needed ready made, and it is stated that "nearly the whole of what is sent into the country differs from the regular and orthodox prescription."

Some important American remedies found their way very slowly into use. When the Edinburgh Pharmacopœia of 1730 was published, cinchona bark had then been

known for eighty years, and had been in more general use for twenty-four years; yet there was only one preparation of it, and that a simple watery extract. The following short history of the introduction of cinchona or China Chinæ, as it was then called, is given in this work: "This simple is the bark of a certain tree growing in the West Indies and called by the Spaniards, fever tree, on account of its surprising efficacy in the cure of that distemper." After naming some of the localities from which it was obtained, and briefly describing the tree, it states that "Cardinal de Lugo was the first who brought it into France, in 1650, upon which it was then called by his name, but afterwards by the name of Jesuits' powder, because they had the distributing thereof; the Cardinal, who was of their order, having left them a large quantity. Its use was now neglected until the year 1706, when Dr. Talbot again brought it upon the stage in France, and established its reputation by the numerous cures he performed with it. These cases appeared so extraordinary to the King of France, the great Louis XIV, that by a royal reward he procured the doctor to publish the secret." Its use, however, during the long interval mentioned, was not entirely discontinued. In "Salmon's Practical Physic," published in 1602, among twenty-three remedies for ague occurs the following: "A specific against all manner of agues: Take quinquum, or Jesuit's bark, 2 drachms, beat it into a powder just about the time of using it; infuse it in a good draught of claret or other generous wine for the space of two hours, then give the patient both liquor and powder at once." The enormous price at which the bark was at first held, must have restricted its use to the wealthy. Pomet tells us that when Cardinal Lugo brought it first from Peru it was sold weight for weight for the price of gold, equal to four pounds sterling per ounce. There were some curious remedies in use for intermittents about this time. We extract the following from "Dr. Fuller's Body of Prescripts," published in London in 1710. "Remedy for ague: A cataplasm of herbs: Take Venice tumentine, 2 ounces; juice of plantain, 1 ounce and a half; figs, 3; the yellow paring of orange rind, 2 drachms; bole, 2 drachms and a

half; soot, half an ounce; pigeon's dung, 1 ounce and a half; large spider webs, 6; black soap, 4 ounces; vinegar enough to beat it up with. To drive an ague tie this about the wrists, so as to make it bear hard upon the pulses two hours before the fit."

. The same work recommends a decoction of chamomile flowers with a little cochineal and salt of wormwood, as a specific in intermittents little inferior even to the famed Peruvian bark. Long after this the bark had many opponents, and the contest waxed warm between these and its advocates for many years. In 1747 John Wesley wrote his book of *Primitive Physic*. In a postscript to the preface of his work, the following appears: "It is because they are not safe, but extremely dangerous, that I have omitted the four Herculean medicines, opium (the bark), steel, and most of the preparations of quicksilver. Herculean indeed—far too strong for common men to grapple with. How many fatal effects have these produced in the hands of no ordinary physicians! The instances are glaring and undeniable."

About the same time, the celebrated Dr. Tissot wrote his work entitled "*Advice with Respect to Health*," in which he strongly recommends the use of Peruvian bark, especially in agues. An anonymous reviewer of the period thus criticises him on this point: "I refer to his vehement recommendation of Peruvian bark as the only infallible remedy either for mortifications or intermitting fevers. He really seems transported with the theme, as do many physicians besides. It is not an infallible remedy either for one or the other. I have known pounds of it given to stop a mortification, yet the mortification spread till it killed the patient. I myself took pounds of it when I was young, for a common tertian ague, and that after vomiting, yet it did not, would not effect a cure; and I should probably have died of it had I not been cured unawares by drinking largely of lemonade. I will be bold to say, from my personal knowledge, that there are other remedies which more seldom fail. I believe the bark has cured six agues in ten; I know cobweb pills have cured nine in ten. The bark has often stopped mortification, but sometimes

it has failed. I object, secondly, that it is far from being a safe remedy. This I affirm in the face of the sun : that it frequently turns an intermitting fever into a consumption. By this means, a few years since, one of the most amiable young women I have known lost her life, and so did one of the healthiest young men in Yorkshire. I could multiply instances, but I need go no further than my own case. In the last ague which I had, the first ounce of bark was, as I expected, thrown off by purging; the second, being mixed with salt of wormwood, stayed in my stomach, and just at the hour the ague should have come began a pain at my shoulder blade. Quickly it shifted its place, began a little under my left breast and there fixed. In less than an hour I had a short cough, and soon after a small fever. From that time the cough, the pain and the fever continued without intermission; and every night, soon after I lay down, came first a dry cough for forty or fifty minutes, then an impetuous one, until something seemed to burst, and for half an hour more I threw up thick foetid pus. Here was expedition! What but a ball could have made quicker dispatch than this infallible medicine? In less than six hours it obstructed, inflamed and ulcerated my lungs, and by this summary process brought me into the third stage of a true pulmonary consumption. Excuse me, therefore, if escaped with the skin of my teeth, I say to all I have any influence over, whenever you have an intermitting fever, look at me and beware of the bark."

Finally, however, the bark conquered the opposing prejudices. About ten years later, we find in a work on the commerce of the European settlements in America, when speaking of this substance, the following remarks: "This medicine, as usual, was held in defiance for a good while by the faculty, but after an obstinate defense they have thought proper at last to surrender. Notwithstanding all the mischiefs at first foreseen in its use, everybody knows that it is at this day innocently and efficaciously prescribed in a great variety of cases; for which reason, it makes a considerable and valuable part of the cargo of the galleons."

this extract is often very carelessly made by the country people, and urges that it should be prepared by the better informed apothecaries, and that this remedy should have a place in the Pharmacopœia of the United States, when such a desideratum shall be supplied. From the same work we learn that at this early period the castor oil plant was cultivated for profit in Maryland, Virginia and Ohio. *Lobelia inflata* was just then coming into notice, although not much was known of its properties; it was supposed to be a diuretic. *Spigelia marylandica* was in high favor as an anthelmintic, and was so highly esteemed by the Cherokee Indians that the author says it would sometimes be dangerous for a man to be detected in digging it up to carry it away from the country. The whites learned the anthelmintic properties of this vegetable from the Indians. *Hydrastis canadensis* is spoken of as a popular remedy in some parts of the United States as a tonic, and was also used externally as a wash in inflammation of the eyes. *Xanthoxylum fraxineum* was mentioned as a medicine well worthy the attention of physicians, and poke root (*phytolacca decandra*) as an active medicinal agent, some of the properties of which had long been known; it was said to be valuable especially in chronic rheumatism, and in some cases of scrofula.

In the first edition of the United States Pharmacopœia, published in 1820, the number of vegetable remedies is about the same as those now officinal, and a large proportion of them hold the same relative standing now as then. A few things at that time in the primary list have since been placed in the secondary, while several articles then in the secondary list are at present in the front rank with those of primary importance. As a notable example of this I would mention ergot.

Our present officinal materia medica list includes 256 articles, of which Africa supplies twelve—eleven primary and one secondary; Asia, forty-six—forty-one primary and five secondary; Europe, eighty-six—seventy-five primary and eleven secondary, while America furnishes no less than one hundred and twelve in all—sixty-eight of which are in the primary list and forty-four in the secondary.

These vegetable productions are scattered among eighty-one different orders of plants, fourteen of which orders include one hundred and thirty-five remedies, more than one-half of the total number. These fourteen orders, each of which constitutes five or more articles to our *materia medica* if placed in the order of their relative importance with the proportion contributed by each continent, would read as follows: *Compositæ*, sixteen—America 4, Europe 11, Asia 2, Africa 1; *Leguminosæ* sixteen—America 6, Europe 2, Asia 4, Africa 4; *Rosacæ* fifteen—America 5, Europe 9, Africa 1; *Labiatae* fourteen—America 5, Europe 9; *Umbelliferæ* ten—America none, Europe 6, Asia 3, Africa 1; *Euphorbiacæ* eight—America 5, Asia 3; *Ranunculacæ* eight—America 6, Europe 2; *Coniferæ* eight—America 4, Europe 4; *Gentianacæ* six—America 3, Europe 2, Asia 1; *Urticacæ* six—America 1, Europe 4, Asia 1; *Rutacæ* five—America 3, Europe 1, Africa 1; *Liliacæ* five—Europe 2, Africa 3; *Graminæ* five—America 1, Europe 4. When we consider the great number of living species of plants now inhabiting the earth, the small proportion of them used as remedies for disease, seems quite insignificant. As an illustration of this, take the flora of the northern United States, including the district east of the Mississippi and north of North Carolina and Tennessee as given in Gray's Manual, and see in those orders which contribute the greatest number of medicinal agents, what proportion they bear to the whole.

In the order of *compositæ*, we have 276 native species, and of these only four have as yet found their way into our Dispensatory. Of *Leguminosæ*, which yields six American remedies, we find 95 native species, while *Rosacæ* has 56, of which five are recognized as remedies. *Labiatae* has 47 American species, only five of which are officinal, and *Umbelliferæ* 39, none of which have as yet found their way into use. Of *Ranunculacæ*, we have 43 natives, six of which are included among our remedies, while *Euphorbiacæ* gives five to our *materia medica* list out of a total of 31 native species. Of *Coniferæ*, we have 18 species, four of which are classed among our medicinal agents. *Gentianacæ* 23, only three of which are in use. *Sola-*

naceæ, of which we have 10 American species, supplies us with two remedies; of Urticaceæ, we have 14 natives and only one in use; of Gramineæ 136, only one of which is used; of Liliaceæ, we have 49, not one of which is known as a medicine, while in Rutaceæ, of which we only have three native species, all of them are officinal.

We have thus in these fourteen orders, in the Northern United States alone, no less than 840 species, of which only forty-five are as yet used as remedies, a fraction over five per cent. of the whole; but the number of species we have mentioned gives us only a very partial idea of the richness of the flora of the continent of America, for south and west of the limits embraced in Gray's Manual, there is a wealth of vegetation far exceeding that found in the North; and when we add to these products of the northern portion of the continent the rich and varied flora of South America, our material for experiment far surpasses our knowledge. To avoid misconception, I must mention here that in the forty-five American remedies just referred to are included all those contributed by the whole continent of America, so that, when looked at from this standpoint, instead of amounting to nearly five per cent. in the order enumerated, they probably do not exceed one or two out of every hundred species existing. I would not for a moment advocate the idea that every plant not useful for food must necessarily possess some marked medicinal value, yet I cannot help thinking that amongst this great mass of interested vegetable products, many valuable remedies will yet be found, the discovery of which may mark eras in the progress of the science of medicine.

Dr. Barton, in his valuable work already referred to, well remarks that "the man who discovers one valuable new medicine is a more important benefactor to his species than Alexander, Casar, or an hundred other conquerors." Even his glory in the estimation of a truly civilized age will be greater and more lasting than that of these admired ravagers of the world. I will venture to go farther. All the splendid discoveries of Newton are not of so much real utility to the world as the discovery of the Peruvian bark or the powers of opium and mercury in the cure of

certain diseases. If the distance of time and the darkness of history did not prevent us from ascertaining who first discovered the properties of the poppy—that sweet, oblivious antidote for alleviating pain and for soothing those rooted sorrows which disturb our happiness; if we could tell who first discovered the mighty strength of mercury, or ascertain who was the first native of Peru that first experienced and revealed to his countrymen the powers of the bark in curing intermittent fevers, would not the civilized nations of the earth, with one accord, concur in erecting durable monuments of granite and of brass to such benefactors of the species? Would not even the savage, who wants not a sense of benefits conferred upon him, be seen to form the tumulus of stones or to raise the green sod, the only monuments his humble condition would admit of his erecting? And may we not yet look for the discovery of medicines as important to mankind as opium, the bark and mercury?

The progress of such discovery will necessarily be slow. To establish fully the claims of any medicinal agent, long series of experiments are necessary—experiments conducted with great care; and even then so much is sometimes credited to the drug which really results from the remedial efforts of nature, that it is difficult to determine what properly belongs to each. While these experiments do not properly come within the sphere in which the pharmacist labors, yet he is often enabled to greatly aid the physician by his knowledge of simples, and of the most effectual methods of preparing them for use.

Did time permit, I might refer in some detail to the immense climatic advantages America offers for the cultivation of many of the most important foreign medicinal agents, and to the interesting fields for experiment yet unexplored. So varied is the climate and soil in different portions of this continent, that with suitable care in the selection of localities, one could scarcely fail in any of these departments. Among the successes, commercially, in this direction, permit me to mention the culture of the castor oil plant in the West, and the supplying to commerce not only enough of this useful article for home con-

sumption, but also an excess for export trade; to the culture of the orange and lemon in Florida and Southern California, and that of the olive in California, and the appearance of Californian olive oil in our markets; also, to the growth, in the same favored State, of the sweet and bitter almond, and the manufacture of the products obtained from these for which we have heretofore been indebted to Europe. As an outgrowth of the extensive culture of the finest varieties of grapes on the Pacific slope, and the manufacture, on a large scale, of excellent wines, we have also the production of considerable quantities of bitartrate of potash, and the valued chemical products of which this is the basis.

But I must not weary you. Enough has been said to place the new world in the front rank among the continents of the earth for the production of the good and the useful and the beautiful, to satisfy the eye and please the tastes, as well as to relieve the distresses of mankind, and enough to show that among the most useful and highly medicinal agents may be ranked some of the products of this beautiful western world.

DIPHTHERIA ANALOGOUS TO ERYSIPELLATOUS INFLAMMATION.

BY W. O'DANIEL, M.D., OF BULLARDS, GA.

I have for many years in my own experience noticed the identical analogy of diphtheria with erysipelatus inflammations. Pseudomembraneous croup (mostly confined to children) and putrid sore throat are in some respects synonyms of diphtheria. The word diphtheria, coming from a Greek word, signifying membrane. Every practitioner of medicine has no doubt been horrified at the ravages of this most fatal disease in its malignant form. Diphtheria was known, perhaps, to the early writers, but not by this name, until so called by Bretonneau, perhaps half a century ago.

The croupous form has had the greatest fatality among

children. While I desire to record my experience in a few cases, I am not *entirely* satisfied that such analogy is general, but of sufficient frequency to have had my attention attracted to certain pathological phenomena which have caused me to regard the very striking similarity or analogy in the two diseases. I have carefully noted a few cases of erysipelatous inflammation supervening diphtheria when a subsidence of the diphtheretic exudation and symptoms *immediately* commenced.

I remember one case in a little girl, six years old, which I considered hopelessly ill with diphtheria, when a sore came upon the foot which was considered insignificant by myself and the parents of the child—so much so that treatment was considered unnecessary. This turned out to be a malignant erysipelatous inflammation which progressed rapidly. I then thought I had a dreadful complication to contend with, which would, of course, have had a tendency to lessen the chances for recovery, but to my utter surprise and almost inexpressible gratification, in a few hours a noticeable subsidence of the inflammation of the throat and fauces commenced, and improvement continued until a speedy and complete recovery ensued.

I remember two other cases in adults, in which the same results were manifest. One was a white lady about 40 years old, who had an obstinate case of diphtheria, when an unmistakable erysipelas commenced in the arm and rapidly progressed with very unfavorable symptoms. In this case the throat symptoms very rapidly subsided, the erysipelas controlled and the lady had a good recovery.

The other was a servant girl of my friend and professional brother, Dr. S. L. Richardson, who fell under my professional care during the doctor's absence from home. She, too, had malignant diphtheria. I treated her two or three days when the doctor's return made further attention from me unnecessary, and I consequently lost sight of the case.

In consultation with the doctor some time afterwards, he casually remarked to me that "The girl you treated took

erysipelas in the face which extended rapidly to the scalp," when the diphtheria subsided and the girl had a speedy recovery.

I have mentioned these cases out of many; I do not mean to convey the idea that all cases of diphtheria are thus associated with erysipelas, but that it does frequently occur, and that the same toxemia *may* produce these conditions.

If it is true that a metastatic influence thus palliates or controls in any way diphtheria in the slightest degree, could we not reasonably expect similar results from counter-irritation made at will? Now, in regard to the treatment I would say, that after purgatives (if necessary) and rest, I rely mostly on the internal use of the mur. tr. iron and quinine as the *chief* remedies indicated. I frequently use lotions and washes of carbolic acid and the dilute mur. tr. iron. I prescribe the iron, largely diluted with water, and given almost to saturation, and the quinine until the specific effect is had. Of course, always being governed by circumstances, and treating symptoms as they arise. This plan of treatment has given me better satisfaction than any I have yet adopted.

DIPHTHERIA.

By H. C. RYALS, M.D., McVILLE, GA.

Of the peculiar nature and cause of this disease—whether or not it depends upon atmospheric cause or bacterian organisms floating in the air—I have not the means to satisfy myself. That it assumes the magnitude of an epidemic of destructive character, I have, however, abundant evidence. About the first of July last, diphtheria made its appearance in our village, was found to spread as an epidemic, and now prevails to a considerable extent in the counties of Telfair and Montgomery. While to the study of its nature and cause much time may yet be profitably employed, I think any plan of treatment followed by success should certainly be made known. The cause,

whatever it may be, is certainly unavoidable, so far as I can observe, in the epidemic of which I write.

From the commencement of the epidemic up to this time, I have treated one hundred and fifteen cases. To the first forty-one were given such remedies as had been advised by eminent physicians contributing to the ATLANTA MEDICAL AND SURGICAL JOURNAL, and other journals of the country. Muriated tincture of iron, chlorate of potassium, quinine, salicylic acid, and carbolic acid were used in these cases, and eleven of the forty-one died, making over twenty-nine per cent. of mortality. Most of these medicines were then laid aside. In fact, none of them were regularly used afterwards in the treatment of the seventy-four cases. Now, while we cannot always be positively certain that recovery following treatment depends upon that treatment, we are, and should be, inclined to prefer that which shows the smallest per cent. of deaths. In these seventy-four cases, all of which recovered, the treatment consisted almost exclusively of sulphur in drachm doses every hour or two, according to urgency of the symptoms. It is not necessary to be very particular about the quantity. Without weighing, I generally gave to a child three or four years old what will lie on the point of a case-knife, every two hours.

This was the sole treatment, except to have the bowels moved, when necessary, with castor oil and spirit of turpentine, and a flannel around the neck. Nutritious food was taken by all as regularly as could be under the circumstances. The success attending this simple treatment has so impressed the people with its importance that many take sulphur and recover without the aid of a physician at all. I feel perfectly confident of success in the treatment of any ordinary case of diphtheria with this remedy, and believe it will bear the test in any epidemic of the disease that may occur.

These facts, hurriedly given, are contributed to your JOURNAL that others may be induced to test the efficacy of a simple, cheap and readily obtained medicine in the treatment of a dangerous and rapidly fatal disease.

Reports of Societies.

ATLANTA ACADEMY OF MEDICINE.

DR. J. G. WESTMORELAND, REPORTER.

ATLANTA, GA., Nov. 11, 1878.

Dr. J. F. Alexander, President, in the chair.

Dr. A. W. Calhoun reported two cases of cleft palate, both of which extended only through the soft parts. Nothing unusual occurred in the cases, both having recovered readily, except that a small point failed to unite in one of them, which, however, seems to improve by the application of nitrate of silver. He desires the opinion of those having experience in such operations, as to the best mode of relieving such difficulties.

Dr. J. T. Johnson reported a case of femoral hernia requiring an operation for the relief of strangulation. The tumor was opened and the supposed stricture at Gimbernatt's ligament was well cut, but without giving freedom sufficient to return the strangulated bowel. The sack was then opened, and at the mouth of the same the stricture was found and divided; after which the bowel was readily returned. The case had nothing unusual except the point of stricture being located at the sac instead of the femoral ring, and also the comparative rarity of this form of hernia.

November 18, 1878.

Dr. J. F. Alexander, President, in the chair.

Dr. H. L. Wilson reported a case of chancroid ulcer of the penis, which had destroyed the glands and a portion of the prepuce. The case had received bad treatment, or perhaps no treatment at all, previous to consulting Dr. Wilson, and it seems from the appearance when presented that the ulceration of the glands had gone on with the prepuce contracted in front of it, so that the process of ulceration was not probably detected by the patient or any

one who may have prescribed for him, till ulceration through the front or upper portion of the foreskin had revealed the destructive process which had been going on within. The remnant of prepuce was so arranged by Dr. W. that a kind of a make-shift of a glands was formed.

Dr. J. H. Low reported a case of uterine disease in a lady forty-three years of age. The disease has existed for fifteen years, and has confined her to her room for four years. From extensive and minute digital examination, the conclusion he has arrived at is that stricture of the internal os exists as the main cause of trouble. He had first formed this opinion from detection of the contracted portion by the finger, and from the reported pain in the discharge of blood, which is copious most of the time. The patient complains of burning sensation of the surface of right side of the body and lower extremity, with severe pain in the limbs. He desires the opinion of members on this case.

Dr. J. T. Johnson thought the examination insufficient to determine the course that should be pursued.

Dr. J. G. Westmoreland said the nervous sensations described were common in any serious disease of the uterus. Pain and various strange sensations are the result of reflex nervous disturbance. He thinks more thorough examination is necessary to determine even the state of the cervical canal and os internum, which cannot be done satisfactorily by digital exploration. Evidently the intra-uterine surface is the subject of disease, and its nature should be ascertained so that proper applications for its relief can be made.

Dr. J. T. Johnson reported two cases of syphilitic chancre. There was nothing very unusual in the cases, except as to the period of incubation. Both were contracted from the same source, and while in one the chancre was developed in five weeks, in the other nine weeks elapsed before the local manifestations appeared. He expressed confidence in the correctness of the history which fixes the time of incubation, and the character of the chancre is, he thinks, undoubted. He had read of three weeks, and even forty or fifty days, but sixty-three days, as was found to be

the period of incubation of one case, is a longer time than he has seen recorded.

Dr. Baird reported progress of so-called idiopathic tetanus. The case has gradually improved since last report. There is still irregularity of movement, but no decided tetanic spasm. A kind of delirium is occasionally present, particularly on waking from sleep. He is now taking eight drops every six hours of tincture gelsemium.

Dr. Calhoun reported progress in the case of cystocircus reported some months ago. The eye thus affected has still less vision, and of course will entirely fail ultimately. He also reported two cases of bony tumor of the meatus auditorius. The tumor, commencing on the posterior wall, gradually filled up the canal. Hearing in the ear affected is almost entirely lost. He proposes relief by drilling off the osseous tumor by a peculiar instrument for the purpose.

Dr. J. F. Alexander, the President, reported a case of twins, in which one of the children was found dead, and had evidently been in a state of decomposition for several days. The mother had miscarried several times, the fœtus being dead. Syphilitic taint was traced, and some years ago treatment was given to relieve the offspring of the father, who was contaminated. It was instituted by giving the mother iodine, and hence the full time for this delivery. He does not think the death of one of the children depended on the syphilis, as heretofore. He thinks the mother had not been contaminated, but that the taint proving destructive to the children emanated entirely from the father.

Some discussion was had on the question whether this taint could be communicated to the fœtus without infecting the mother. Also in regard to the beneficial effects of iodide potassium in inherited syphilis. Dr. Johnson thought it is not, while Dr. Baird believed it is.

Dr. Connally, in connection with this subject, mentioned a case of inherited syphilis from the father, and a child born afterwards was healthy. The mother was the subject of uterine disease after the birth of the last child, which disappeared under syphilitic treatment. He thinks the syphilitic taint thus proven in the mother was communicated by the father through the fœtus to the mother.

Selections.

PROCIDENTIA UTERI AND ITS TREATMENT.

By HENRY P. WENZEL, M.D., *THERRSA, WIS.*

There is no other disease in the domain of gynæcology that produces so much discomfort and suffering as procidentia uteri. Whether it be caused by brutal treatment during labor, or falling or jumping, or from atonicity of the uterine ligaments or the walls of the vagina, or the displacement resulting from pressure—there is but one way to correct the malposition: reduction of the organ to its normal position and retention by proper appliances.

It is useless, here, to detail the anatomy or the relations of the parts involved. The redundancy of the vaginal walls and debility of the uterine ligaments are prime causes in this lesion. So soon as the womb is forced below its normal site for any length of time, congestion and, later, hypertrophy, result; the increased weight of the organ further displaces it, and with the prolapsed uterus follow the ovaries, bladder and rectum. During the first stage of prolapsus—really only a descent—there may be no inconvenience, nor erosions of the mucous membrane; but when the os tinæ presents at the vulval fissure, or the greater part or the whole uterus hangs pendant between the thighs, the mucous tissues are rapidly ulcerated or totally destroyed. In recent cases the uterus is congested and eroded or fissured, but later it is covered with erosions, ulcers and scabs; a fetid, thin, sanious pus exudes, which may endanger the patient's life by absorption or inhalation of septic matter. The bladder and rectum are displaced, the latter forward and downward, the former downward; the lower segment of the uterus is partly everted; the cervical canal forcibly dilated; the vaginal walls inverted, and the pelvic vault weakened; the intestines sink into the pelvic cavity and produce an unnecessary pressure on the displaced organs. The excruciating agony, the rec-

tal and vesical tenesmus, and the host of concomitant symptoms, must necessarily result as a consequence of the malposition of all the parts involved. Is it a wonder, then, that the unfortunate patient prays for death to end her misery? Yet this lesion is generally easy to correct, and taken in time may not only be relieved, but cured in young cases. There are legions of appliances to correct the trouble, but how many deserve notice or a name? How many of them relieve only temporarily, or, if you please, increase the evil? How often is a pessary unnecessarily applied, and by its pressure does infinite harm?

Why do these cases pass from one hand to another? Each one attempts to relieve; he who "quacks" the case longest gains the largest fee, and the disgusted patient seeks relief elsewhere. The difficulty lies here: the natural laws involved in this lesion are disregarded; the malposed anatomical structures ignored; no attention is paid to their relations, nor to physiological functions; good common sense is of more value than theoretical speculation. Besides, there are many pretenders, claiming to be gynæcologists, who could not differentiate a prolapsed rectum from the prolapsed womb, or between the latter and prolapsed vagina; consequently, the treatment must be worse than useless. When an accurate diagnosis is made, the appliance to be worn for the correction of the deformity should be carefully selected and carefully adjusted, that it may fit accurately. It is as essential for a pessary to fit accurately as for a boot to fit the foot nicely. Pressure must, under all circumstances, be avoided. Dangerous and fatal inflammation may result from unnecessary pressure at any time.

Sometimes a mechanical appliance is altogether out of place. In general debility of the system, and atonicity or relaxation of the stays of the uterus, a simple tampon, locally, and the bitter tonics and iron internally, are followed by better results than the best pessary ever invented.

Three years ago a lady, aged fifty-three, called to be treated. She could scarcely be out of bed. She suffered from general exhaustion, nervousness, etc. A year previ-

ously her health failed, and she had prolapse of the womb. A Hodge closed-lever pessary had been introduced by a physician, but her condition did not improve. She began to complain of pain and tenderness in the pelvis, which continued unremittingly, and was of course attributable to the pessary. A thin, fetid liquid discharged constantly in small quantities from the vagina, and rigors, followed by flushes of heat, supervened. This was also laid to the presence of the pessary, and the attending medical adviser directed that the pessary must remain to cover his careless blunder and hide the damage done as long as possible. A vaginal examination revealed the pessary imbedded in the tissues. It was removed, and a gush of fetid, sanguinolent fluid followed. The vaginal walls were deeply ulcerated, and the posterior part of the cervix was nearly destroyed by the large sores in its substance. Locally, she was treated by a tampon, saturated with carbolized glycérine, and internally the bitter tonics and iron. In two months she performed all her household duties without any mechanical support whatever; nor has she worn any appliance whatever since; yet at the present time she is in good health, and there is no procidentia or falling of the womb. The treatment was simple and rational, and the original trouble being removed, all danger of prolapse had vanished.

There are cases where ligaments holding the uterus *in situ* have been overstretched and exhausted; degenerative changes have taken place. Here complete recovery is impossible. The organ can be replaced, and must be kept in proper position by accurately fitting mechanical appliance, to remove the difficulty and relieve the patient's distress. The best instrument for the purpose I have found to be that manufactured by Dr. S. S. Staufer, of Philadelphia. It is composed of two parts, namely, an abdominal belt of strong elastic rubber, and a hard rubber stem cup, resting on two soft rubber tubes which pass through its base, and are attached to the belt in front and behind by buckles. The cup is placed on a curved stem to fit the pelvis, thereby avoiding useless friction. The cups are of different size and shape. The instrument is easily applied,

removed and cleaned. It cannot get out of order. There is no caustic action, for gold and silver may corrode—rubber never. The instrument may remain *in situ* during urination and defecation, and does not cause annoyance in the sitting or reclining posture. All instruments must be accurately fitted, and Dr. Stauffer gives exchange privileges until correct.

The two following cases were recently treated for procidentia uteri. One is a young mother of twenty-four, in excellent health, and the other an old lady, about seventy-two years of age, suffering from bronchitis.

CASE 1.—Mrs. W. jumped from a lumber wagon in October, 1877. She was in her third month of pregnancy. There was sudden pain and distress, and the attending physician found a prolapse of the second degree, reduced the dislocation, and applied a ring pessary which came away a few days after (application). She was delivered, at term, of a large, living, female infant. The midwife allowed her to get up on the third day. She felt immediate pain, tenderness and inconvenience, which constantly grew worse. I saw the case for the first time two weeks later, and found complete procidentia. The uterus was as large as a fetal head, dusky red, and had some fissures on the exterior. The vagina was pulled down and inverted; there was internal vesical and rectal tenesmus, intense pain in the knees, etc. The organ was with difficulty replaced, and a tampon saturated with carbolyzed glycerine placed against the os. The vagina was packed with cotton. The dressings were changed every two days. She was kept supine for two weeks. There was improvement from the first, pain and tenesmus ceased, and appetite and sleep returned. She received no medicine internally.

Four weeks later the uterus was much diminished in size and free from ulcerations. I fitted one of Stauffer's stem-cup supporters (cup $2\frac{1}{2}$ inches). She performed her household duties at once with ease; the uterus was perfectly retained. She bound and carried sheaves during harvest, and does all kinds of farm work besides her household duties, and is happy. The instrument is worn since the 1st of May, and the relief is permanent.

CASE 2.—Mrs. F., aged about 72, was injured by an ignorant midwife, at the birth of her last child. She was treated with variable success by many physicians, and wore nearly every variety of pessary in the market without any benefit. Some called her trouble “prolapse” of the bladder; one “prolapse” of the vagina; one “prolapse” of the rectum. She was constitutionally treated, without any benefit whatever.

Status præsens, July 31st, 1878. Saw her the first time to-day. She is broken down in health; has *facies uterina*; eyes very weak; violent paroxysmal headache; anorexia and insomnia; locomotion is impossible; there is violent pain in both knees and in back; her pulse is neither slow nor fast, but feeble; she suffers from chills and flushes of heat, constant nausea and frequent vomiting. There is vesical and rectal tenesmus and an acrid diarrhœa. Her person is very offensive. There is also chronic bronchitis.

The uterus is completely prolapsed, and lies between the thighs. The mucous membrane is destroyed and the surface full of ulcers, which are covered with scabs and crusts; the ulcers extend to the muscular tissue, and exude a thin, fetid, sanio-pus. The external os is widely dilated and cervix partly everted; the cervical canal is a mass of ulcerated tissue; the fundus is also implicated; cavity nine inches deep. The vaginal walls are inverted and full of fetid ulcers. The bladder is drawn downward and the rectum downward and forward, forming a pouch, which is filled with fecal matter. In the upright position the intestines sink into the pelvic cavity.

The entire diseased mass was bathed with solution of thymol, which removed the fetor at once and permanently. The organ was with difficulty replaced, and a tampon saturated with solution of thymol—thymol, 1 gm; glycerine, 120 gm.; water, 600 gm., applied. This forms a clear solution, and has a specific gravity of 1.026. It may be further reduced if found to “burn” too much when applied—placed against the cervix uteri. The vagina was moderately packed with cotton. For two weeks the dressings were renewed night and morning, subsequently every three or four days. Internally, pulverized glycyrrhizæ

comp., of the Prussian Pharmacopœia, a heaped teaspoonful at night, in a tumbler of water, during her time of treatment.

August 1st. Less nausea, and headache less violent; tenesmus only moderately severe. *There is no fetor*; appetite poor; local treatment same; internally (Wyeth's) elix. cinch. pepsin and bismuth. August 3d. Appetite improved; no pain whatever on walking; œdema of uterus subsiding; ulcers covered with granulations; uterine cavity six inches; treatment same. August 8th. Uterine cavity four and a half inches; healthy granulations. Internally four drops fl. ext. æsculus glabera thrice daily. August 23d. Uterine cavity three inches; uterine walls flaccid; no pain; no œdema; ulcers healed; general health much improved; treatment continued. August 28th. Applied a Staufer supporter, with two-inch oblique stem-cup; all other treatment stopped. September 4th. Took a ride of twenty-four miles in a carriage yesterday, without inconvenience. General health very good. September 30th. Uterus held perfectly in position. There is neither discomfort nor annoyance. At the present time her general health is good; she attends to her few household duties, and the instrument has relieved the trouble permanently.

In conclusion, I wish to call attention to the use of thymol solution in uterine diseases. An extensive trial during the last six months, in diseases of the womb, convinces me that it is a valuable adjunct in uterine therapeutics, and superior to carbolic acid.

1st. It cannot be made strong enough to act as a cauterant; thymol in substance feebly cauterizes.

2d. Thymol solution destroys the fetor instantly and effectually.

3d. Thymol solution leaves the grateful odor of *thymus vulgaris*.

4th. Thymol solution heals the ulcer more rapidly.

5th. There is no danger of toxic symptoms following the local application of thymol solution; it may be taken internally more freely than carbolic acid, without producing dangerous consequences.—*Med. and Surg. Reporter.*

RECENT PROGRESS IN PATHOLOGY AND PATHOLOGICAL ANATOMY.

By R. H. FITZ, M.D.

PATHOLOGY.

Passage of Migratory Cells through Inflamed Serous Membranes.—Arnold has endeavored to ascertain through what parts of inflamed serous membranes the amœboid cells reach the surface, and what may be the condition of the substance between the superficial endothelial cells under such circumstances. He was enabled to observe that the cement between these endothelial cells became irregular in its outline after inflammation was produced, and that the migratory cells reached the surface by passing between the endothelial cells, never through them. The cement became swollen, and showed a series of dots and rings when stained with nitrate of silver; this alteration was so extensive and so uniform that it was not to be regarded as an accidental or unimportant occurrence. On the contrary, it was thought to be a direct result of the inflammatory process, and due to an increased tension of the membrane and a more abundant flow of fluid towards the surface. It could not, however, be determined whether the cellular migration was first in point of time, being followed by the punctiform changes, or whether the reverse was the case. The general impression derived from the observation of the living object was that the alteration of the cement was primary.

Relation between Tuberculosis and Scrofula.—The investigations of Friedlander with regard to a local tuberculosis have been made the subject of an experimental criticism by Bollinger. He objects to the inferences drawn from experiments made upon rabbits and guinea-pigs, since a variety of causes may result in the production of affections similar to tuberculosis, though not identical with human tuberculosis or phthisis. Even if a peritoneal outgrowth of nodules resembling tubercles follows the insertion of various different objects into the abdominal cavity of these animals, it is by no means to be inferred that tuber-

culosis of the human species and other mammals is not due to a specific agent.

The experiments of Bollinger were made upon a goat, and a classical miliary tuberculosis of the peritonæum followed the introduction of a fluid containing cheesy particles from a tuberculous bovine lung. The resulting tubercles differed in no way from the miliary tubercles of man, and their local development was independent of the course of the blood-vessels or of the larger lymphatics. Furthermore, there were no evidences of peritonitis except at that part of the peritonæum where the wound had been made. It was therefore evident that, in the inoculated variety of tuberculosis, the miliary growths may occur in healthy tissues as well as in those subject to inflammation. He considers that this experiment justifies the view that there may result from inoculation a tuberculosis thoroughly homologous with human tuberculosis.

In the same paper he gives the history of his attempts at determining experimentally the relation between scrofula and tuberculosis. A part only of the contemplated plan was carried out, and bits of a supposed scrofulous gland were inserted within the abdomen of a goat. The animal died after several weeks, and a miliary tuberculosis of the peritonæum was found. The effect of this experiment suggested to Bollinger that the individual from whom the scrofulous gland came was suffering from a tuberculous scrofula; further examination showed that solidification and fine rales were present at the top of the right lung. The inference drawn from this experiment was that certain diseases clinically regarded as scrofula are nothing else than a beginning tuberculosis, and that a different diagnosis may be made by experiment in certain initial forms of tuberculosis which pursue the course of scrofula. This experiment also confirmed the view that the agent which is present in the cheesy mass causes tubercles but not inflammation.

Other experiments have enabled him to state that certain forms of tuberculosis, induced by feeding, bear a strong morphological resemblance to scrofula of the human species, and that in many such cases the most striking

change is an alteration of the lymphatic glands, like that which occurs in scrofula and tabes mesenterica. He further considers that his experiments justify him in stating that two forms of scrofula may be distinguished: the one simple and benignant; the other a specific tubercular form, which may be regarded as a beginning tuberculosis.

Transmission of Tuberculosis through the Air.—At the annual meeting of the society of German naturalists and physicians, Lippl gave the results of his experiments concerning the production of tuberculosis, assuming that the introduction of an infective material is the important factor. He endeavored to compel an inhalation of sputa from tuberculous patients, the minutest particles alone being used, that the irritating effect of large fragments might be avoided. Dogs were selected as the most suitable animals for experimentation, from the rarity with which they become tuberculous. This series of experiments proved negative. When the sputum was diluted with a weak solution of salt and water, however, and this mixture inhaled, a miliary tuberculosis resulted.

Tappeiner also produced an artificial tuberculosis by causing dogs to inhale a spray composed of phthisical sputa diluted with water. Other dogs were fed with similar sputa, and were found to have acquired a miliary tuberculosis. He inferred that the human subject may also become tuberculous from the inhalation of particles from phthisical sputa suspended in air. The experiments seem to favor the view of the contagious nature of pulmonary phthisis, and to indicate that it is dangerous for phthisical patients to swallow their own sputa.

At the same meeting Schweninger called attention to the importance of these observations, if the nodules were to be regarded as actual tubercles. He had examined the specimens referred to in the above communications, and was of the opinion that they represented actual tubercles, and were entirely distinct from the appearances described by Friedlander and Wolff. The hereditary character and the contagion of tuberculosis thus received a ready explanation; for the inhalation of air expired from phthis-

ical patients and the use of milk from tuberculous mothers furnished a more satisfactory means for transmitting the tuberculous poison than the view of predisposition or constitution.

Changes in Bone Produced by Arsenic.—Rabbits, fowls and pigs were fed by Gies during a period of nearly four months with small but gradually increasing doses of arsenic. The several animals grew heavier and fatter, and the epiphyseal and periosteal growth of bone became increased in those animals which, during the course of the experiments, were not fully developed. Spongy bone was everywhere replaced by compact bone; the bones of the wrist and the ankle, for instance, having been found to be composed of solid bone. A dense layer of bone was formed beneath the epiphyseal cartilage, as after feeding with phosphorus, and was especially marked at the upper epiphysis of the humerus and at the lower end of the femur. Animals confined in the same pen with those experimented upon showed similar changes of the epiphyseal layer, which fact was attributed by Gies to the absorption of arsenic eliminated from the skin and lungs of their companions. Corresponding alterations were found in animals confined in a cage, beneath the perforated floor of which arsenic was spread.

When adult animals were fed with arsenic, the cortical layer of the diaphysis became considerably thickened. More or less pronounced fatty degeneration of the heart, liver, kidneys and spleen was present, although the general nutrition of the animal was most excellent. Larger doses of arsenic gave rise to the usual phenomena of arsenical poisoning, namely, inflammatory changes in the stomach, extreme hyperæmia of the intestinal mucous membrane, and a very extensive fatty degeneration of the liver, spleen, kidneys and heart.

The young born from the rabbits were cast dead, yet were remarkable for their size, and showed the beginning of the changes above described. A considerable hypertrophy of the thymus gland was also found.

Fatty Heart.—Leyden makes a communication to the Berlin Medical Society on this subject in connection with the report of a case. He considers that there are three

forms of fatty heart: in the first the muscular fibres are degenerated; in the second there is an excessive formation of fat tissue upon the heart; in the third there is an abundant development of fat tissue upon the heart and between its muscular bundles, but occurring in cachectic individuals, whose hearts are small and atrophied, and who have but little fat tissue.

In this last form the fat is to be considered as filling gaps, but not as a cause of disease. Objection is made to the custom of including the first two forms under one head, as is usual in the modern works on diseases of the heart, although it is admitted that fatty degeneration of the heart can only be suspected during life. This suspicion may assume a greater or less degree of probability, but the existence of a fatty heart as a definite disease cannot be certainly diagnosticated.

He reports in detail a case of fatty infiltration of the heart occurring in a corpulent person, who presented during life evidences of a feeble heart. After death both ventricles were found to be dilated, and there was an aneurismal dilatation of the apex. The presence of numerous disseminated small spots, in which the muscular fibres were separated by fat, and consequently atrophied, was considered as a cause for these lesions and for the symptoms. The fatty infiltration was supposed to have disappeared in places, leaving an atrophied portion with thickened interstitial tissue. This relation between the atrophied portion and the development of fat tissue was inferred from the more abundant accumulation of the fat towards the pericardium, and the association of a fatty infiltration of the spaces between the muscular bundles, while the bundles themselves were atrophied.—*Boston Med. and Surg. Journal.*

GASTRIC ULCER.

By E. DREIFUS, M.D.

This lesion, which, on account of its characteristic form and peculiar course, is designated as *ulcus rotundum* or *per-*

forans, was not known to the older physicians—at least they had no thorough knowledge of it, but confounded it generally with other morbid processes. It was first distinctly described by Cruveilhier, in his great work on pathological anatomy, in the year 1830, he saying it was previously confounded with cancer of the stomach.

In 1839 Rokitansky gave an account of it under the name of perforating ulcer of the stomach. A very fine essay was published by Cruveilhier, in the *Archives Generales* for February and April, 1856. To Dr. William Brinton and his valuable essay are we indebted for many of the facts now known in regard to this disease.

The chief seats of it are at the lesser curvature, posterior wall, and specially in the pyloric portion, and at the cardia. In very rare cases it occurs in the duodenum or œsophagus.

The characteristic features of the ulcer are its circular form, as if stamped out, and its tendency to extend destructively to all the strata of the gastric parietes. The process of destruction always commences at the mucous membrane, and is confined to it in a large number of cases. Accordingly we find not unfrequently in bodies the traces of a previous simple ulcer; and the healing takes place, as in all other ulcerations, by means of the formation of new connective tissue at the bottom of the ulcer, by which the edges gradually grow together and finally unite. In proportion to the loss of substance will be the constriction and shortening, causing deformity of the stomach; and the consequences may be both a narrowing of the pyloric half, and also a considerable interference with the vermicular movements of the organ. But if the ulcer progresses, it then frequently leads to perforation, and, by the escape of the contents of the stomach, gives rise to general and usually fatal peritonitis.

In respect to extent and size, numerous gradations occur, and the form of the stomach is still more irregular when several ulcers become confluent.

Causes.—The causes of simple gastric ulcers are not sufficiently known. Probably several factors concur in their production. We may assume, as probable, that a partial

disturbance of nutrition, due to disease of the blood-vessels, occasions a circumscribed gangrenous destruction of mucous membrane. The hypothesis that an altered condition of gastric juice gives rise to the ulcer appears to me to be unfounded; nevertheless it cannot be denied that the vermicular movements of the stomach and the action of the gastric juice hinder the cicatrization and consequent healing. Without doubt, similar ulcers occur on other mucous surfaces; but, on the one hand, they are not followed by the same severe consequences as in the simple ulcer of the stomach, and, on the other hand, they heal much more readily. Under unfavorable circumstances, as has been mentioned, the ulcer ends in perforation of the stomach and fatal peritonitis; but this occurrence will rarely be prevented by the circumstance that the base of the ulcer has formed adhesions to some of the neighboring organs. Such adhesions are formed corresponding to the seat of the ulcer, more frequently between the stomach and pancreas or duodenum, and also with the left lobes of the liver, the anterior walls of the abdomen and omentum, the spleen, the diaphragm, the colon, etc. If the loss of substance be small and the adhesions to the neighboring parts firm, life may be prolonged for a considerable period. But if the loss of substance be great, the function of the stomach will, in spite of the cicatrization, be much disordered, and the nutrition of the animal economy will suffer severely in consequence. Besides, even with firm adhesions, subsequent perforations may occur from softening of the false membranes.

Symptoms.—The symptoms which accompany ulcer of the stomach during life are very variable. Sometimes for a long interval the symptoms are very insignificant, or may be entirely absent; but, for the most part, disorders of the stomach manifest themselves. Generally we observe a very painful sensation in the epigastrium, of weight, or drawing together. By pressure in the region of the stomach, a fixed, painful spot is detected. But these phenomena are also manifested in chronic gastric catarrh, and in carcinoma of the stomach; and either of these complaints may be confounded with simple gastric ulcer.

The appetite is usually more or less disturbed, occasionally unchanged and oftentimes increased. Yet the patients complain of slow digestion after meals, of pains, of pyrosis, eructations, etc. As the disorder increases, retching and vomiting make their appearance. The pain is generally fixed, but not confined to the same spot. All these symptoms, as is evident, are not pathognomonic, and physicians are, therefore, at an early period of the disease, not in a position to make a positive diagnosis. The hæmatemesis is of greater importance, and it is also one of the most dangerous symptoms, from its dreaded tendency to collapse. Vomiting of blood occurs with varied intensity. The vomited matters are either only slightly tinged with blood, or are colored chocolate brown, or like coffee grounds, the dark color arising from the action of the gastric juice upon the blood effused into and detained for some time in the stomach.

Should, during the course of ulceration, a larger blood vessel be eroded, the hemorrhage might be sufficient to cause immediate death, or at all events the highest degree of anæmia, and exhaustion would result. A feeling of weight and fullness of the epigastrium frequently precedes the vomiting of blood. The hæmatemesis may take place at any period of the disease. The results of profuse vomiting of blood are similar to hemorrhages all over the body—syncope, pallor, coldness of the extremities, feeble pulse, etc. Sometimes hemorrhage takes place without vomiting. If a patient suddenly turns pale after a momentary feeling of weight and heat in the epigastrium, and, on examination, the region of the stomach yields a hollow percussion sound; if the pulse becomes feeble, and syncope comes on, from these symptoms we may conclude that internal hemorrhage has taken place. Such an internal hemorrhage may occasion death without vomiting, as the bleeding generally occurs during digestion. Bodily and mental emotions may induce it, but especially any excitement of the circulation. Emetics, also, for which the patient often craves, may bring it on.

Several stages of this disease may be distinguished. In the first, the formation of the ulcer occupies a considerable

time for its completion, the chief symptom being simply a kind of gastralgia, sometimes, indeed, of a most intense degree. The pains present nothing characteristic; they may be continuous and fixed or paroxysmal, and may be very easily mistaken for nervous gastralgia. The occurrence of pain in the spine opposite the epigastrium is also not characteristic, being found in other gastric affections. Hence, in the early stage, ulcer of the stomach is very difficult to diagnose. Palpation reveals at most a fixed spot, where pain is increased by pressure, and only in the case of persistent adhesions can we sometimes discover a certain induration.

In the succeeding stage, vomiting of blood comes on, from which we are better able to decide on the nature of the disease, although this symptom does not exclusively belong to simple ulcer of the stomach, but does sometimes appear in the course of carcinoma of that organ. Even in this stage of the disease, Drs. Brinton and Budd say: "Often repeated hemorrhages have taken place; the process of healing by cicatrization does sometimes occur, and patients do get well." It has been my lot to see only two cases, and both proved fatal. Hemorrhage must always be regarded as a very grave symptom, because the bleeding itself may prove dangerous. And, besides, it indicates that deeper ulceration is in course of progress. Usually all the blood is not vomited, but a portion passes off by the stools, in an altered condition, and sometimes the whole of the effused blood is so discharged.

In the third stage, perforation of the mucous membrane takes place, in consequence of which the contents of the stomach escape into the cavity of the peritoneum, causing a usually rapid and fatal peritonitis. This can only be averted, in the case of slowly formed perforation, by adhesions to the neighboring parts, and sometimes these adhesions give way at a later period. If these adhesions are extensive, and give rise to a hardness perceptible to the touch, they may be confounded with carcinoma. Occasionally perforations occur suddenly, not preceded by other considerable symptoms of disease, as for instance when the progress of the ulcer is quite latent. Extensive adhesions

may occasion long continued disorders of the stomach and induce ill health ; but a small adhesion may remain after cure without producing any derangement of the stomach whatsoever.

The morbid appearances to be looked for after death are a smooth, round, ulcerated spot, as if stamped out, and adhesions. We know that gastric *post-mortem* changes occur early, and are sometimes due to cadaveric digestion, as well as hypostases and putrefaction ; and they have sometimes been misinterpreted as the *ante-mortem* lesions of inflammation, ulceration and perforation. There are few dead bodies in which the stomach is not in some degree digested. Its greatest ravages are found in the bodies of those suddenly killed after a hearty meal, especially if the body has been kept in a warm place. In such cases the stomach may be perforated with ragged, lacerated openings, and its contents be found floating in the abdominal cavity ; or even greater ravages may ensue.

Cadaveric digestion sometimes presents erosions enough to simulate ulceration ; and drops of blood may flow from the digested ends of small vessels, when pressure is made on the branches from which they are derived.

From the above facts it is manifest that, since engorgement with discoloration, softening, opening of the vessels and destruction of tissues do occur in the most depending part of the stomach, as results of hypostatic, digestive or putrefactive *post-mortem* changes, too great caution cannot be exercised in attributing any such changes to *ante-mortem* lesions, when these changes are limited to its splenic end and to the line of gastric contents.

Prognosis.—the prognosis of ulcer of the stomach is always doubtful, although many cases of cure are said to have occurred, and although authorities say a cure may take place at any stage of the disease, I shall always consider it a very grave and serious, if not fatal malady. Death results either from hemorrhage or peritonitis ; or, when the disease is of long duration, from exhaustion. From various statistics I have found that nearly one-third of all known cases of simple ulcer of the stomach prove fatal.

Treatment.—As regards treatment, little is to be said beyond hygienic measures and nourishment, as there are no specifics for this complaint. The most important rule is, that the patient subject himself to a most rigid dietetic regimen and observe the strictest quietude, in order, if possible, to favor the cicatrization of the ulcer. Besides this, we must endeavor to combat particular distressing symptoms. Milk diet is certainly the best that can be used; and, in consequence of the great irritability of the stomach and the difficulty of patients' retaining any food, I would suggest feeding by the rectum, as we now know that absorption goes on just as readily there as *per viam naturalem*; and we consequently lessen the peristaltic action of the stomach, which seems to be one of the prime causes that interfere with cicatrization. To allay the gastralgia, hypodermic injections of one of the salts of morphia and other narcotics may be used, and for the frequent constipation, enemata may be employed; for the obstinate vomiting, ice, alum or tannin, and small quantities of carbonic acid waters; for hæmatemesis, ice, alum, tannin, bismuth, hypodermic injections of fluid extract of ergot or ergotine, besides the tincture ferri chloridi; and, in addition, what appears to me the most rational of all, is the frequent washing out of the stomach with a stomach-pump, using a three per cent. solution of carbolized water.

The greatest obstacle towards a successful treatment seems to be that the chief indications, absolute rest and abstinence from everything injurious, cannot be fulfilled. We are therefore compelled to confine our efforts to reducing the action of the stomach to its minimum, using the most easily digested food, and to feed *per rectum*. This course of treatment must be persevered in for a long time, alternating when the rectum becomes irritable, as it will usually do, and feeding by the mouth again, but only in the most minute quantities, and such articles as require little or no digestion. For perforation little, of course, can be done, and treatment of symptoms is alone available.

New Orleans Med. and Surg. Journal.

UNUSUAL EFFECTS OF QUININE.

BY FREDERICK D. LENTE, M.D.

In the "Reports on the Progress of Medicine" in the *New York Medical Journal* for August, 1878, is a notice of several cases, in which, after the administration of quinine in moderate doses, a profuse exanthem appeared, which lasted several days, and was followed by desquamation, lasting from two to three weeks. Two of the cases were observed by Prof. Koebner, of Bresleau. In one case there was a repetition of the phenomena after a repetition of the dose. Dr. Ricklin, who reports the cases in the *Gazette Medicale*, was able to discover only four analogous cases in medical literature. But the "Report" states that Dr. Pflueger, of Berne, found the eruption to appear after the administration of the decoction of cinchona as well as after sulphate of quinine. In one of the cases the eruption resembled *urticaria*, but in this case the desquamation lasted three weeks. In all the cases the general symptoms were severe and even alarming; in one, that of a physician who took a gramme of quinine for facial neuralgia, "there was intense fever, delirium, dyspnoea, and all the signs of pulmonary congestion." Dr. Ricklin considers these cases important, "especially in view of the large number of pretended relapses of febrile exanthemata, particularly of scarlatina, which have lately been recorded."

Serious symptoms following the use of quinine are so rare (though not unfrequently alleged by non-professional persons, especially those under the care of homœopathic physicians) that the writer deems it of sufficient interest in this connection to refer to a few cases which came under his own observation a few years ago while practicing at Cold Spring.

A delicate laundress in the employ of a neighbor of the writer required a tonic, and when he proposed quinine she stated that it had produced dangerous symptoms when administered on a former occasion. One of the ordinary elixirs of calisaya was accordingly prescribed, and

in a diminished dose. On his return home, after an absence of some hours, his associate, Dr. G. W. Murdock, informed him that the first dose produced very unpleasant symptoms, and that, after the second, he was summoned and found her in a comatose state, with cold extremities, hot head, and symptoms of cerebral congestion. He combated these alarming manifestations with vigorous measures, including cupping of the temples, hot stimulating pediluvia, etc., and was obliged to remain with her four hours before she was out of danger. She afterwards informed the writer that a sister had been similarly, but not so seriously, affected by a small dose of quinine.

Soon after this occurrence, the writer prescribed a moderate dose of quinine for a female domestic in the family of a gentleman boarding at Garrison's. He then proceeded to West Point, and some hours after, on his return, met a messenger, who had been sent to find him, with the message that the girl had been taken suddenly very ill. He found her recovering from the attack, which had presented symptoms similar to those above narrated, but in a much milder degree.

A lady patient of the writer's, in the same neighborhood, informed him that quinine always weakened instead of strengthening her. He tried the experiment with small doses without her suspecting it, but she soon detected it by the peculiar prostration which it produced. He then tried the citrate of iron and quinine, but even this was detected in the same manner. At about the same time a case occurred in the practice of a medical acquaintance on Staten Island. A lady patient informed him, when he proposed to administer quinine, that it had always produced alarming symptoms; he, however, rather ridiculed the idea, and said he would give her a small dose and remain with her to observe its effect. He did so, and soon had reason to regret his experiment, as he was himself alarmed at the symptoms. What they were the writer did not learn, as the case was related to him by a friend of the patient.

These cases all occurred within a twelvemonth, and

never before or since, in a large quinine experience, and with doses of every size (and he has recorded cases where an ounce was taken, *vide* H. C. Wood's *Mat. Med.*), has the writer met with a similar case.

Apropos of the eruptive phenomena, it may be well to state that during the prevalence of malarious fever in Cold Spring, some years ago, the attacks, in several instances, were ushered in by a profuse and typical *urticaria*, which disappeared quite promptly, whether in consequence of the full doses of quinine administered, or the full development of the febrile paroxysm it is impossible to say. In one female patient, who had repeated attacks of the fever, the latter could always be predicted by the appearance of the eruption. Last summer a gentleman at Saratoga Springs, a healthy man, applied to the writer for relief from a most troublesome attack of acute *urticaria*, for which, on close inquiry, he could ascribe no cause. He had not been exposed to miasmatic influences, as far as he was aware. He had taken a few powders prescribed by a homœopathic physician, but without any relief. His legs were considerably swollen, his face somewhat so. General baths of tepid water, impregnated with borax and carbonate of soda, were prescribed, which relieved the urgent symptoms. In view of the usual tardiness of the ordinary treatment of these cases, and also believing that we must look to the nervous system for the pathology of the disease, quinine in doses of ten grains was prescribed, to be repeated *pro re nata*. This was effectual. Relief would follow and continue for some hours. Then the eruption would commence to re-appear, and, on a repetition of the dose, would soon commence to decline. After five or six doses he was entirely relieved. He continued well when last seen a couple of weeks later. There was no desquamation.

It is noteworthy that all the writer's cases, in which severe or unpleasant symptoms followed the ingestion of quinine, occurred in the person of females. The sex is mentioned in only two of Dr. Ricklin's cases. One was a male, the other a female. Should quinine prove to be a remedy for *urticaria*, it might, in the light of these his-

tories, be taken as an illustration of the doctrine of *similia similibus curantur*.

Since writing the above, and on taking up a late number of the Cincinnati *Lancet and Clinic*, it is noticed that Dr. G. W. H. Kemper asks the question: "Does sulphate of cinchonidia cause urticaria and puffiness?" He states that both he and his partner have observed the unusual number of cases of urticaria, especially among children attacked with malarial fever. It is quite common, he states, for families to use the sulphate of cinchonidia for fevers, and quite as common to be consulted by them for hives, nettle-rash, etc., also puffiness of face, eyelids, and extremities, independent of the urticaria. He says: "I have seen nothing on the subject, but have arrived at the conclusion that the sulphate of cinchonidia is the cause of the urticaria." He says, however, that he has known an individual, after taking sulphate of quinine, always to suffer from an erythema to such an extent that general desquamation followed. In this case, cinchonidia had the same effect. He adds: "I would be glad to hear from members of the profession upon this interesting and practical question. I formerly thought that malaria caused urticaria, but have abandoned that idea."

In the last edition of Ringer's *Hand-book*, it is also noticed that he says: "Quinine, in one of my patients, always brings out a uniform red rash over the whole surface of the body. * * * Desquamation, as free as after a sharp attack of scarlet fever, always follows the rash." He states that "it is well known that quinine can produce urticaria."—*New York Medical Record*.

Editorial.

YELLOW FEVER COMMISSION.

In the November number of this JOURNAL we alluded, in a short article, to the forthcoming report of this Commission. Our readers are already familiar with the manner of its organization. It is known that Dr. Woodworth, Surgeon-General of Marine Hospital Service, appointed Dr. Bemis, of New Orleans, Dr. Cochran, of Mobile, and Dr. Howard, of Baltimore, to form a commission for the purpose of investigating the origin and spread of yellow fever. Col. Hardee was also appointed sanitary engineer of the Commission.

Dr. S. M. Bemis, chairman, was joined in New Orleans by the other two members early in October, and the work of investigation commenced.

The great object seems to have been to prove that yellow fever is exotic—that the disease was imported to New Orleans, and transported thence to other places on the Mississippi river. While we do not know the previous views of all those concerned in the investigation, it is certain that Dr. Woodworth, creator of the Commission, had expressed the opinion that yellow fever is exotic, is always imported to this country, is not indigenous, and has no local origin here.

The work was commenced by a survey of the fever portions of the city, and the location of the first cases noted on the map. The history given by the residents of New Orleans, upon which the Commission base their conclusions, and upon which they rely for proof of importation, is found in the following extract from their report, made through Dr. Bemis, the chairman, to the National Health Association at its meeting in Richmond, Virginia:

“On the 23d of May, the Emily Souder arrived at New Orleans, with her purser sick at the time of her arrival. This man, whose name was Clark, was carried to Claiborn

street, near the corner of Blenville, at a point conspicuously designated on the map of New Orleans. At this house he died on the 25th of May. The death was returned by the attending physician as one from malarial fever. For testimony establishing the fact that this was a case of yellow fever, I refer the association to Dr. Cochran's notes. Another of the crew of the Souder by the name of Elliott took sick May 24th, at the corner of Girard street and from which place he was taken to the Hotel Dieu, May 27th, and died on the 30th. The Commission deemed it important, as a first step in their work, to ascertain whether such connection existed between these imported cases and those occurring in New Orleans as to authorize them to declare that they afforded the fact of infection from which the disease afterwards spread in the city. We were compelled to leave New Orleans before this point in our investigation had been satisfactorily accomplished. Enough was developed, however, to render it probable that a connection, as yet untraceable, does exist between the cases, Clark and Elliott, and the first cases among the citizens of New Orleans. It is proper to add, at this point, that the Commission received a number of letters and some verbal statements purporting to give information respecting violations of quarantine by fruit vessels and other ships entering the port of New Orleans from infected ports. Every effort which could be made in the limited time we had for work in New Orleans was put on foot to ferret out the facts connected with such alleged infringement of quarantine laws. We obtained a sufficient amount of testimony to justify a belief that one or more cases of yellow fever had occurred in the city, probably in the month of June, under circumstances which rendered it altogether possible that they had been brought to the city by conveyances as yet unknown (see testimony of Drs. Cochran and Bemis) from the time that the disease made its appearance in this form of series or groups of cases, each having connection with some other, either by personal association or from exposure in the same locality. We have located ten cases on a map, which comprise all the reported cases which occurred in July. To this map have been added a

group of cases occurring during the first ten days of August, because of their importance when studied in connection with the epidemic which subsequently occurred in Canton, Mississippi."

Now, in this first, grand, decisive step of the investigation, we assert that the effort to sustain the importation theory has proved an utter and virtually acknowledged failure! The case of fever landed at New Orleans on the 23d of May belonged to the crew of a vessel hailing from some port not known or not necessary to be mentioned. A little information as to whether the crew had been exposed to the causes of disease at Havana, New York or Baltimore might have given more general satisfaction. The attending physician reported the case to be one of malarial fever, in which is generally included remittent, simple intermittent or malignant intermittent, called congestive fever. The Commission ascertained that the physician in attendance was mistaken in his diagnosis, but from whom, and in what manner we are not informed. Suppose it be true that the doctor was mistaken, and that two *bona fide* cases of yellow fever were thrown into the populous city of New Orleans, and suppose, for the sake of the argument, that they were contagious, is it not passing strange that from this hot-bed of disease, only "one or more cases" should occur during the whole of the following month of June, and "it altogether possible that *they* had been brought to the city by conveyances as yet unknown?" Indeed, is it not unreasonable to suppose that after thirty days the disease should spread from the two seamen? To say the least of it, this is certainly an immense period of incubation!

The Commission certainly confess their failure to establish even a "connection untraceable," or "probable," when they say, alluding to the connection between these and subsequent cases: "We were compelled to leave New Orleans before this point in our investigation had been satisfactorily established."

Upon "this first step" the whole question depends, and we view it as a serious misfortune to the country that the Commission were "compelled to leave" without coming to,

and expressing, a definite conclusion upon undeniable facts presented. The report goes out to the world as settling the question of importation by selected talented and scientific physicians, when really no positive conclusion is had. Better that no report had been made than one of possibilities and probabilities, with a decided leaning to what was and could not be proved.

The importation theory is adopted by government officials, and the Commission endeavor, though unsuccessfully, to prove it true. With these authorities before him, the President of the United States feels called upon to suggest, in his recent message to Congress, the importance of their prompt attention to the subject of quarantine. To show that he is thoroughly impressed with the popular idea of transportation of the disease which is so zealously sought to be made general, the President says of yellow fever: "It was rapidly spread by fugitives from the infected cities and towns." * * Now, without sufficient proof of such "spread," the legislative department of the government is to be called on for the appropriation of large sums of money to consummate the project of certain officials for quarantine, the effects of which will work detriment to commerce and personal comfort, without compensating benefit to any.

The zealous, self-sacrificing gentlemen of the Commission labored, doubtless, for the benefit of mankind, but evidently have overlooked an important channel of investigation. Traveling, infectious or contagious yellow fever has engaged their thoughts, to the exclusion of the deadly poison originating in the swamps, marshes and pools of the Mississippi and its tributaries the past summer. An unusual overflow, and intensely hot weather, has led to the production of malignant malarial poison along the course of this river which receives the washings of so large an area of fertile cultivated land.

The Commission, it seems, entirely neglected to investigate the surroundings of infected districts. Were there not indigenous cases of undoubted malarial fever, preceding and during the entire epidemic of yellow fever in New Orleans? This fact should certainly have been men-

tioned to show the usual co-existence of and connection between yellow fever and other forms of malarial fever, such as intermittent, remittent and congestive.

Had there been appointed a member on this Commission without preconceived settled views against the local origin of yellow fever, these facts would, in all probability, have been mentioned in the report.

The Commission have certainly neglected to report on the probable local cause of disease in New Orleans and other points, except as to the want of sanitary attention to streets, at some points. Why, we ask, were not the local causes for the unusual amount of malarial poison at all the points where yellow fever occurred, mentioned by the Commission? Common sense, humanity and the general interests of this country demand such investigation, and such report. This and other epidemics of yellow fever, we assert, follow and are traceable to unusual cause of malaria where they occur, and that milder forms of malarial fever, such as simple intermittent, remittent, as well as malignant intermittent, accompany yellow fever. Savannah, in 1876, had the surroundings suited to the production of malaria, and the evidences of its existence, in unusual amount, without a single fact proving importation of yellow fever, as the Board of Health were forced to admit. Brunswick, the same year, had the same conditions, to-wit: overflow from excessive rains, and excessively hot weather; and every variety of malarial disease, including yellow fever was the result. Importation was there said also to be proved, by various circumstances; one of which was the boarding of a ship by a seamstress, who contracted yellow fever the next day. This or any other proof is sufficient for those whose minds are already made up on the subject, and are determined to believe nothing but importation.

If the assiduous labors devoted to the discovery of connection between foreign and indigenous cases had been divided so as to give some attention to the other side of this question, the cause of humanity would have been more profitably served. The almost yearly transportation, and even importation, of yellow fever cases, to locations where no malarial cause of disease exists, without

communicating it to others, is a fact that should be prominently noted by a commission, whose report is to govern the sanitation of this country in regard to a disease so destructive to life as yellow fever. Hundreds of non-malarious places have been made the test of personal infection by having yellow fever cases brought to them, and the disease *did not "spread."* In a fair and earnest search for truth, such facts should be taken into consideration. For twenty-five years, Atlanta has been made the refuge of yellow fever sufferers, when epidemics occur on the coast and large rivers of the South. Many of the refugees have had the fever here. Some have died with black vomit, while others have recovered; but in no instance has the disease been communicated, however closely associated citizens of this place may have been with the sick. Much evidence of this kind can be secured without any trouble to the seeker after truth on this subject.

If, then, the disease be not communicated in a non-malarious locality, why should its spreading be attributed to personal infection or contagion where malarial cause exists? Travel and various kinds of intercommunication are carried on between various infected and healthy points at all times, and the fever prevails every year, but is not carried and does not exist in Savannah, Augusta and various places on the Mississippi river, unless the condition of these localities favor the production of the poison. Then, if the cause must be there, in order to the development, why conclude that the disease is imported or carried from some other place? No "spark" is necessary to "ignite the tinder." When malaria is in sufficient quantity and of sufficient virulence, malignant fever in the form of congestive, yellow, or hæmaturial, will be found.

In conclusion, we have this to say: In order to avoid danger, it is necessary, first, to know where it lies, and next, the mode of escape. Yellow fever is evidently contracted by personal infection or contagion, or by exposure to malarial poison. If the former be the correct theory, the danger may be avoided by preventing contact with subjects of the disease; *if the latter, the conditions necessary to the production of the malaria must be changed, or the inhabi-*

tants must flee from the poisoned locality. In the settlement of this question, there is something more involved than the solution of an abstract scientific problem. Thousands of valuable lives hang upon the decision arrived at. If to quarantine we must look for safety, it must be made perfect; and, on the other hand, if local origin is settled upon as true, and the generation of the poison cannot be prevented, safety depends upon flight. Error in conclusion; therefore, works mischief. If quarantine is relied on, no sanitary measures will be adopted, and the subtle poison slowly but surely does its work of death.

In Congress, already, has a committee of the Senate been appointed to join a like one of the House "to inquire into the cause of yellow fever, what legislation is necessary to prevent its introduction into the country, etc." We earnestly implore this committee to require and examine facts on the other side of this question before deciding upon measures directed solely against importation and transportation. Close observers have proven the local origin of this fever, and such proof should not be ignored in reports of medical men, upon which measures of relief are to be instituted by the government. The useless expenditure of money on quarantine will be a small matter compared with the suffering and death which will result from the error of personal infection being acted on, leaving the people an easy prey to the enemy at home, by having their attention called away from the true origin of the disease.

WE have just received a package containing preparations of pepsin pancreatine and malt. The revenue stamps on the bottles indicate some special privilege conferred by the government which we do not very well understand. It cannot be that a patent for the exclusive use of these useful articles has been secured, for all pharmacists make them, and all apothecaries dispense them. It is presumable that the exclusive right has been granted, as a pharmacist, to unite these articles in certain proportions for the trade under a definite name.

Now, of this manner of dealing among druggists with each other we have nothing to say, if the public and physicians are not to be affected unfavorably by it. The names and amounts of the articles associated in each bottle are given, but though patented in this form, the right of a physician to order from an apothecary a prescription of these remedies, in the exact proportion given on the bottle, is certainly not affected. The preparations are well tasted, and the proportions, as given on the bottles, well suited for use.

The Medical Code of Ethics condemns patent medicines, and, we think, properly. Every thing known by a physician is free to all physicians and to the public. Secret remedies and the exclusive right to use any particular medicine work detriment to the public, and are therefore reprehensible.

METEOROLOGICAL REPORT FOR NOVEMBER.

(Furnished by Dr. George H. Rohe, U. S. Signal Service.)

DATE. 1878.	Mean daily Barometer.	Mean daily Thermometer	Mean daily Humidity.	Maximum Thermometer	Minimum Thermometer	Prevailing di- rection.	Daily Rainfall.
1	30.304	45.7	43.0	54	30	N. W.	
2	30.247	53.0	42.0	62	40	W.	
3	30.229	55.0	46.3	64	46	N. W.	
4	30.214	54.5	49.3	65	42	N. W.	
5	30.199	56.7	57.0	64	44	E.	
6	30.083	60.7	64.7	69	46	S. W.	
7	29.994	63.7	67.3	71	59	W.	.01
8	30.043	54.2	53.3	63	49	N. W.	
9	30.111	52.7	53.0	61	43	N. W.	
10	30.044	54.7	56.3	65	42	S. E.	
11	29.783	61.0	68.3	68	51	S. W.	.04
12	29.936	51.2	69.0	58	46	N. W.	
13	30.043	53.7	49.7	63	41	N. W.	
14	30.206	54.0	45.3	62.5	45	E.	
15	30.183	46.5	64.3	51	44	E.	.13
16	30.033	51.0	93.0	54	46	E.	.46
17	30.076	56.0	85.3	64	50	N. W.	
18	29.979	58.5	71.3	66	51	N. W.	
19	29.814	52.5	88.3	55	50	N. E.	.09
20	29.825	53.5	75.3	61	46	N. W.	
21	29.731	47.0	74.7	54	46	N. W.	.48
22	29.756	45.0	54.3	52	38	N. W.	
23	29.867	55.0	47.0	62	41	N. W.	
24	30.007	59.7	74.0	67	47	S. W.	
25	29.978	63.0	85.7	70	59	S.	.12
26	29.802	62.5	94.0	65	59	S. E.	1.22
27	29.792	45.7	76.3	63	40	S. W.	1.99
28	30.133	42.7	67.3	50	35	N. W.	
29	30.232	49.0	63.3	58	34	N. W.	
30	30.228	50.7	59.0	57	42	E.	
31	.....	.....	.....	...	...	.....	.....
Sums.....	.....	.....	.....	.....	.....	.....	4.54
Monthly Means.	30.029	53.6	64.6	61.3	45.1	N. W.	

Highest Barometer, 30.394 on the 1st.

Lowest Barometer, 29.638, on the 21st.

Monthly range of Barometer, 756.

Highest Temperature, 71°, on 7th. Lowest Temperature, 30° on 1st.

Monthly range of Temperature, 41°.

Greatest daily range of Temperature, 24° on the 1st and 29th.

Least daily range of Temperature, 5°, on the 19th.

Total rainfall, 4.54 inches.

Depth of unmelted snow lying on ground at end of month, — inches.

Prevailing wind, Northwest. Total movement of wind, 79.31 miles.

Maximum velocity of wind and direction, 31 miles, Southwest, on 27th.

*Number of Foggy days, none. Number of Clear days, 13.

Number of fair days, 8. Number of cloudy days on which rain fell, 6.

Number of cloudy days on which no rain fell, 3.

Total number of days on which rain fell, 9.

EUROPEAN CORRESPONDENCE.

PARIS, September 30, 1878.

Of all the curious and interesting discoveries, or, perhaps, more correctly speaking, rediscoveries of modern times, probably the most wonderful is the metalloscopy of Dr. Burg, which has been undergoing investigation for some time by Prof. Charcot and others at the Salpetriere.

The facts demonstrated evidence once more the truth of phenomena which have been, I may almost say are, regarded as spurious, such as mesmerism, biology, etc., whose discoveries were scouted and reviled during their lives, and even now their followers are by the public at least looked upon almost as cheats, and swindlers, or else as fools, enthusiasts, or monomaniacs; as persons to be investigated, not believed. All this, and much more even, not to make mention of the accusations against them, originating in the pulpit or being in close connection with his Satanic Majesty. But Mesmor is no longer a fool or a humbug, nor are Perkins' tractors a fraud. Mesmor is amply revenged, and it is not a little curious that his justification should come from the very city from which came the most scathing denunciation of his discovery. Nor is this the first time that the truth demonstrated by Mesmor have been again brought to light, and in Paris too, without the least acknowledgement to him. It is not many years since M. Velpeau brought forward the same thing, and ungenerously called it forsooth not mesmorism, but hypurtism.

Metalloscopy is the investigation of the same phenomena extended over a far wider range as regards effects, but confined to one class of individuals, namely: Hystero-epileptics; in other words, it is the over-sensitiveness which may exist in a peculiar class of nervous patients to certain electrical conditions or to the sensations of certain substances somewhat like the exaggerated sensitiveness to light—photographic—which exists in certain ophthalmic affections. But if this sensitiveness becomes so remarkable in diseased conditions, certainly it is but fair to conclude that it exists in a dormant, or more probably in an

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inappreciable condition in each individual! becoming exaggerated or tangible, so to speak, only in peculiar organizations, or under the influence of certain morbid conditions.

But let the causes and the explanation be what they may, the facts, the phenomena, remain; and the time has come when the popular and scientific judgment—passed as has always been the case on such subjects hastily and without just and fair investigation—upon all this class of nervous phenomena from witchcraft to spiritualism, from ecstasy to metalloscopy, should be revived. That the mysterious influence which gives to our living organism a certain control more or less powerful over another creature, which appears even to extend to the influence of organized beings over inorganic matter, and by which, as now demonstrated, inorganic matter reacts upon the living tissues, and which appears to be another form or property of that ether which unites the universe into one whole, should be reinvestigated patiently and truthfully, and not with bias or partisan spirit. It is high time that philosophers should be worthy of the name; that they should not be ashamed to acknowledge their ignorance, or their inability to fathom all the secrets of nature. Whenever upon new lines of investigation presented to them they have ventured to pass judgment, giving an opinion based upon their past experience only, almost invariably have they been mistaken, and so they ever will be until they have learned to say and to apply the words, "I do not know."

This is why, in this "old world," new truths take root but slowly. Ignorance and philosophy both join in opposing them, and both, strange to say, for the same reason—vanity; for the most ignorant individual always thinks himself right, and adheres to his opinion with the greatest obstinacy, while the philosopher is never prepared to abandon a pet theory, even after it has been proven erroneous. If the teaching of humility could be made a portion of the wave of modern education—so called—now burdening the world, it would be of much more benefit to posterity than much of the airs and misnamed accomplishments at present taught.

As metalloscopy has only been investigated so far in cases of hystero-epilepsy, a short description of this disease may not be out of place for the benefit of those who desire to repeat the experiments when opportunities offer. It may enable them to distinguish between this disease and true epilepsy.

Hystero-epilepsy is accompanied by tenderness of one or both ovaries. There is loss of sensitiveness of one side of the body, rarely of both, and there is unilateral diminution of muscular power. Color blindness may or may not be present. The perception of violet is generally first lost, while red is the most persistent. There are attacks of epileptiform convulsions, which have in each patient a definite form, but in the main it has been said to consist of three stages: 1st. An epileptiform stage; 2d. Stage of violent movements ("*phase des grande mouvements*"); 3d. Emotional stage ("*phase des attitudes passionnelles*"). A point of differential diagnosis between this disease and true epilepsy insisted upon by Prof. Charcot is, that while in hystero-epilepsy the temperature during the paroxysm is rarely as high as 100°, during that of true epilepsy it may rise as high as 107°. Through the action of magnetic current, electrical currents, electrolyzed plate, strictly unipolar galvanic applications, simple metallic plates of various kinds, according to the metallic sensitiveness of the patient, solenoids, etc., there is a transference of the unilateral symptoms from one side of the body to the other. The disease occurs generally during the menstruating period of life—rarely before it or after it. Recoveries are not common. The epileptiform convulsions can be shortened by pressure on the diseased ovary. The mesmeric and also the cataleptic conditions are often readily induced in these patients. There is generally a zone of peripheral tenderness, by irritating which the epileptiform convulsions may be brought on. When the metallic sensitiveness has been once ascertained by external applications, the internal administration of the same metal will certainly benefit if it does not cure the patient. After the amelioration of the symptoms by the internal administration of the appropriate metal, the external application

may still produce the same phenomena as at first, but more slowly, and this will be the case as long as the cure is incomplete.

It must be remarked that physicians can be easily deceived in the course of their examinations, for hysteria is almost a chameleon disease, modifying its appearances according to the changes of surrounding circumstances, and the therapeutic means employed to remedy it; nor is it at all probable that the analysis of hysterical affection by means of metalloscopic investigations will soon be popularized, because the amount of time, patience and careful observation required for such examinations would be far too great a tax upon the time of the ordinary, hurried "general practitioner," and as there does not appear to be much immediate prospect of remedying this evil, this mode of investigation is likely for the present, at least, to be little more than a scientific curiosity, or to remain for some time in the hand of specialists.

Of course a detailed account of these experiments would be quite impossible in a rambling letter like the present, and, therefore, a description of the leading feature is all that has been attempted, at the same time a hint as to one or two of the difficulties which may be encountered or the illusions which may mislead the inexperienced investigator may not be misplaced. "Expectant attention" holds the first place; the word is already too well known to need a lengthy definition. In cases otherwise quite reliable, the physician must avoid giving the least hint, either to the patient or her friends, of the character of the phenomena or symptoms to be looked for, and the exercise of a like prudent reticence may enable the investigator to avoid another source of error, viz: the counterfeiting of the phenomena by interested persons.

Upon closely examining these curious phenomena, it will be observed that—

1. In certain cases of hystero epilepsy one of the causes of the disease appears to be the absence of one or more chemical principles from the system.

2. The external application of such substance produces seemingly certain phenomena, through which the substance required may be recognized.

3. The internal exhibition of this substance, while curing the disease, diminishes "*pari passu*" the external sensitiveness to the substance.

4. In certain cases the symptoms appear to be intimately associated with a more or less inflamed ovary.

In this class of cases, failing other remedies, would not the extirpation of the diseased ovary be indicated? Would it not be justifiable?

R. J. NUNN.

BIBLIOGRAPHICAL.

ON REST AND PAIN. By John Hilton, F.R.S., F.R.C.S. Second edition. New York: Wm. Wood & Co., 1879. pp. 299.

Messrs. Wm. Wood & Co., sometime ago, announced their intention of publishing a series of standard medical works in a cheap form to appear in monthly volumes, and to be known as Wood's Library of Standard Medical Authors. The above work is the first of the series, and will be followed by others of similar practical value.

ON THE TREATMENT OF THE VARIOUS FORMS OF ACNE AND OF ROSACEA. By R. W. Taylor, M.D., (American Clinical Lectures, No. 34.) New York: G. P. Putnam's Sons. pp. 32.

This is a good, practical description of the symptoms and treatment of these very annoying and troublesome affections, by one of the most accurate and pains-taking dermatologists in this country. It will well repay perusal. The treatment recommended for acne is simple, easily carried out, and, as we can testify from our own experience, effective.

ESSENTIALS OF CHEMISTRY, inorganic and organic, for the use of students in medicine. By R. A. Witthaus, A.M., M.D., Professor of Chemistry in the Medical Department of the University of Vermont, etc., etc. New York: Wm. Wood & Co. 1879.

This is a very small book of about 250 pages, and seems to be intended for convenient reference and study, as it can be carried readily in the pocket.

We are in receipt of "The Physician's Visiting List for 1879," which is the "twenty-eighth year of its publi-

cation."—Philadelphia: Lindsley & Blakeston. Sold by all booksellers and druggists.

Also, "The Physician's Pocket Day-Book, by C. Henri Leonard, M.A., M.D." Price \$1.00—Detroit, Mich.

These are conveniently arranged for the use of practicing physicians, to be carried regularly in the pocket. The former we have been using regularly for some years, and find it useful for keeping medical accounts and calls to be made.

The latter being thinner and also conveniently arranged for noting calls made and to be made, will be found equally useful for the use of the general practitioner.

EXCERPTA.

THE MAN-FISH OF TENNESSEE.—A short time since the Tennessee and Kentucky newspapers contained a startling account of a wild man lately captured, with great difficulty, in the Cumberland Mountains. He was six feet ten inches high, extraordinarily fleet of foot, and excessively savage. He fed chiefly on raw fish, which he captured without artificial aid. He spent much of his time in the water, and after being captured he had to be frequently bathed. He was covered with shining scales, like those of a fish. His hands and feet were webbed like the feet of water-fowls—so the newspaper accounts, with many embellishments, ran. It is scarcely necessary to say that much of this story was only showman's talk, uttered to attract the attention of the curious and credulous public.

The physicians of Louisville were invited to visit the monster upon his arrival in the city prior to his general exhibition. Among others I visited the merman; but before seeing the case I had diagnosed it as one of *ichthyosis*, and a single glance was sufficient to verify the correctness of my conjecture. The man-fish presents a most magnificent example of the form of *ichthyosis*,

or fish-skin disease, called *ichthyosis serpentina*, or serpent-skin; and his general effect is more that of a serpent than of a fish. But upon different parts of his body may be found nearly all the varieties of *ichthyosis*. The resemblance of this man's skin to the shed skin of a boa-constrictor, lately brought me by a friend from the zoological garden in London, is almost perfect. About his joints the skin is loose and wrinkled, hanging in folds, and the scales are large, suggesting the skin of a lizard or alligator about their limbs or belly. His arms and legs remind one of the skin of the buffalo-perch, the carp, or other large fish. The cuticle every where is dry and harsh, and never perspires. There seems to be an absolute absence of fat, and the man is shrunken and withered, of a dead ashen-gray appearance, except here and there, where he is brown or brownish. Though only about fifty years of age, he impresses one as a very old man. The skin of the face is red and shining, and tightly drawn about the cheeks, pulling the lower lids down to such an extent as to perfectly evert them, making a horrid case of *ectropion*. In some places his scales are silvery, in others dark, and again in others are small and branny. His hair is very thin and dead-looking. The backs of his hands are fissured, and on his palms and soles the cuticle is greatly thickened. The fingers and toes seem shorter than natural, and the skin is drawn tightly back over both feet and hands. The septum between the fingers and toes seems to extend much farther down than usual, thus suggesting the webbed appearance before alluded to. He is considerably over six feet in height, and is a man of a low order of intelligence. He is married and is the father of several children, none of whom, fortunately, inherit his malady, and as *ichthyosis* is almost if not always a congenital disease, they are not likely ever to have it. The fish-man fails to present but a single variety of *ichthyosis*, and that is the porcupine disease, as it is called. In this spines, formed by hardened sebaceous material, protrude from the skin, closely packed together. Wilson states that he has observed them a quarter of an inch long. Willan reports having encountered them of an inch in

length. I have never seen them longer than an eighth of an inch. Many years ago two brothers in England having this form of ichthyosis were exhibited in the shows as porcupine-men.

Ichthyosis is one of the rarest of skin-diseases. I am under the impression that it is more frequent in Europe than in this country. In ten years I have seen less than a dozen cases. Its cause, as I stated in my report to the American Dermatological Association, in 1877, is scrofula, according to my observation and experience. It is found in all the walks of life. I have encountered it with equal frequency among the rich and the poor. It is commonly considered incurable, and only temporarily and partially mitigable.

The treatment which I have found successful in permanently removing ichthyosis, in more than one case, consists in the use of the constructives, *i. e.* cod-liver oil, extract of malt, syrup of the iodide of iron, syrup of the hypophosphites, etc.; attention to the digestive organs, and by giving the richest and best fat-producing foods, such as cream, butter, hog meat, fresh or cured, sugar and other sweets. A careful and thorough daily anointing with some oleaginous substance is of great value, and prolonged vapor or hot water baths should be employed frequently.

In conclusion I would advise every medical man, who may have the opportunity, to see this "Tennessee man-fish." He is positively grand in his dermal deformity, and presents, probably, an unequalled example of the fish-skin disease.—*Louisville Medical News.*

TRANSFUSION.—At the meeting of the Societe Biologie, Dr. Brown-Sequard gave an interesting account of his experiments on transfusion. He had made use of different sorts of liquid for transfusion, such as normal blood, blood without its fibrine, and milk. In such case he found the results to be the same, but in the case of the milk the quantity that it was necessary to inject was more considerable than in the others. Ninety-five grammes of blood were drawn from a dog, and were replaced by the same amount of milk. Shortly after the operation (about forty-

five minutes) there was no trace of milk globules to be found in the blood, and the dog has continued in excellent health ever since the operation, which took place more than five months ago. M. Malassez found, upon examining the blood after the transfusion, a greater number of white globules than normal. In concluding his remarks, Dr. Brown-Sequard expressed the opinion that the liquid injected should be at least of a temperature of 10° to 12° C. It was preferable, he thought, to choose the arteries rather than the veins, and recommended the operation to be done very slowly, in order to allow the liquid injection to acquire the temperature of the blood. Transfusion also succeeded in animals when the blood made use of comes from a species of animals different from that of the one under experiment. It appears that Dr. Thomas, of New York, has tried the transfusion of milk on the living subject, and is convinced that it acts as well as blood.—*The Lancet*.

THE EUCALYPTUS IN MALARIAL DISORDERS.—Dr. H. B. Dow, of London, contributes the following experience with this remedy to the London *Lancet*:

In the first case in which I tried it, it was suggested to me by my patient, he saying that he had taken quinine by the pound without result, and that the eucalyptus was the only remedy for him. He had many years since contracted malaria of the worst type in the Douro district, and had tried most remedies without avail. A very few doses of eucalyptus globulus removed the symptoms.

In the second case, my patient had been many years abroad as a missionary, and suffered severely from intermittent fever contracted during his labors in tropical climates. He also found no relief from quinine, but was very speedily relieved by the eucalyptus.

In the third case, my patient was a gentleman who had lived many years in India and China, and during his residence abroad had had even attacks of ague. Recently he experienced a return of his old symptoms, and took quinine, as he had been accustomed to, to check the illness. However, on this occasion it failed to produce the

usual effect, so I recommended him to try the eucalyptus. The effect was at once marked, and speedily all his intermittent symptoms left him

HOW TO KILL A TAPEWORM IN AN HOUR.—Koussou and kamela are expensive drugs, nauseous to the taste, not always effectual, and requires several days to effect the death of the worm. Dr. Karl Bettelhiem, of Vienna, narrates in the *Deutsches Archiv*, a heroic method and nearly sure cure in the short space of three-quarters of an hour or two hours. It is this: He inserts a tube in the œsophagus, to the stomach, and pours down from two hundred to four hundred grammes of very concentrated decoction of pomegranate root, having previously had his patient fast for twenty-four hours. The worm is stupefied and passed, head and all, to a certainty; the patient has no sickness of the stomach and no nauseous swallowing to do; and the drug is cheap.—*Medical Brief*.

TANSY IN PRURITIS VULVÆ.—Dr. Richard L. Butt, of Midway, Ala., extols the use of tansy (*tanacetum hortense*) for the relief of pruritis vulvæ. He has found a poultice made of the leaves of the plant, and applied as hot as the patient can bear it, to be efficacious when leeches to the thighs, washes of borax, lead, zinc, nitrate of silver, sulphate of copper, etc., had been tried in vain. The editors of the *American Practitioner*, which records the above, thinks that possibly the mode of using the tansy, in poultice as hot as can be borne, has something to do with the success which has attended the treatment in the hands of Dr. Butt.—*London Lancet*.

EPISTAXIS ARRESTED BY SUBCUTANEOUS INJECTIONS OF ERGOTINE.—Dr. Porak reports three cases of persistent epistaxis in each of which the hemorrhage was controlled by a single injection of ergotine under the skin. He used a solution of 2 grms. (30 grs.) of Bonjean's ergotine in 30 grms. of glycerine, and injected 20 drops into the lip or cheek.—*La Tribune Medicale*.

ATLANTA Medical and Surgical Journal.

VOL. XVI.] JANUARY—1879. [No. 10

Original Communications.

MEDICAL SOCIETIES IN THE COUNTRY.

By E. A. COBLEIGH, M.D., ATHENS, TENN.

I beg the indulgence of editor and reader that I may say a few words on that much worn topic of medical societies. It is not my purpose to attack defects, or suggest reforms, for those already existing. I say God speed them in the work they are doing. They have accomplished much in the past, and a vast field of usefulness for them presents in the future. Nor do I propose suggesting anything whatever to my medical brethren who are active members of live professional organizations. It is a plea for the forming of new societies, and especially for the pushing of this work by and among the country practitioners, that I enter here.

Not a large center of population in our country but has from one to a score of medical societies in its midst. This is as it should be, and many new points of practical importance are given to us, as a profession, first in the transactions of these very bodies. But ought the good work to stop here? Emphatically no. In these medical centres—the large cities of the United States—hospitals, colleges, museums, lectures on specialties, and various other opportunities for self-information, present themselves for the benefit of him who is seeking greater excellence in medical science. Therefore the need for societies seems to be trifling. Yet they spring up, as it were, spontaneously, to fill some place not occupied by these

other sources of knowledge, which is felt and appreciated by the profession. And, as a rule, when once born, they grow, flourish and do good.

Now, while this state of things obtains in our cities, and in some of our towns and villages, there are hundreds of points where no societies are to be found. This is particularly true of East Tennessee, and our section here is only one of many in the same condition. Why does not a change occur? I can see no valid reason. To the sloth and self-blindness of my own profession belongs the blame, and I do not wonder that the standard of medical perfection fails to rise higher among country practitioners while they persist in slighting chances for improvement which are within such easy reach.

If there is any professional man who, above others, ought to be a paragon of perfection in wisdom, patience, skill, politeness and other virtues too numerous to mention, it is the physician. In his hand he holds, to a certain extent, the lives, health and happiness of this great humanity around us. How much, then, hangs on his shoulders! He who lightly assumes and carries this load of responsibility, is unworthy of the title he bears.

Nor is there to-day any branch of science which is striding more rapidly onward than medicine. Each day seems to bring new discoveries or some improvement in our means of diagnosis, or therapeutics. He who would keep pace with these rapid changes, must avail himself of every opportunity he can obtain to post himself thereon, and unless he does this, both his wisdom and his success soon become things of a past age, an obsolete era of the world's progress, unsuitable for comparison with the living present.

Now, there is no class of practitioners more favorably situated for falling behind in this great march of science than those who are located in our villages and cross-road settlements. Almost, or quite, cut off from the advantages enjoyed by their city brethren, either never seeing other medical men or meeting them so seldom that few opportunities for exchange of opinions occur, making long, lonely trips through sparsely settled regions, given little time for reading, in many cases debarred by impecuniosity from reaping the benefits of a good library, they only too frequently lead isolated lives pro-

professionally—cut off, as it were, from the entire medical world. Some, it is true, are enterprising men, and, as best they can, they study their science and art. They buy new books, take and read the leading journals, put what is new and practical into use, and make intelligent, capable doctors. So far, so good. Is there nothing better? Why not bring the ignorance of one of these classes into contact with the education and culture of the other and elevate the former, also. This can be done, it has been, and will be again.

Now, what are the influences which work to prevent association among neighboring physicians, and their assembling together for social and professional confab at frequent periods? Sometimes, lack of acquaintance with each other. Sometimes, business rivalry, involving jealousy of reputation. Often the plea is press of business. And, lastly, the lack of regular organization into societies. Let us dissect these reasons for not enjoying the pleasures and reaping the benefits of society membership and attendance. The first excuse is a poor one, for it is no difficult matter to make acquaintances when we really wish to. If you or I, kind reader, wanted to form a society, we would find it very little trouble to call on a person, even if a stranger, whom we desired to co-operate with us in the movement, and to state the object of our visit to him. In nine cases out of ten we would be politely received and glad that we went. And, if we felt uninclined to go in person, a written message would answer nearly, or quite, as well. So we find excuse number one to be just no excuse at all.

Second, jealousy stands often in the way of rival physicians affiliating together. Each has, or thinks he has, one or more grievances against his competitor. This is an unpleasant state of affairs to both. Often the apparent grounds of dislike are not founded on fact at all. If left alone these ruptures between competitors usually widen by degrees, each one slurring the other when occasion presents, until at length the breach becomes perpetual—hopeless of cure by any human intervention. Thus two lives are embittered, frequently from no *real* cause of offense at first, but from baseless rumors of injury or insult which “so and so says” has occurred. More frequently a careless remark, unintended to do harm, reaches a rival’s ear, is misinterpreted, a retaliating spirit spurs tongue

and actions to resent the supposed slur, and coldness deepens to fridity between the two. Now, if some energetic doctor would inaugurate a medical society, and get these enemies into it, the chances are that a mutual apologizing would occur sooner or later, misunderstandings be cleared up, and a better state of feeling supervene. Nothing so speedily or effectually breaks down these professional animosities as do our society meetings. I have seen this result occur repeatedly during my connection with the several medical organizations which fortune has at different times enabled me to have membership with. In a few cases I have even known brother physicians who would purposely pass on the streets with studied indifference, become, after a few months, the warmest of friends, in this very way; and that, too, when neither, at the beginning, would deign to take part in any discussion into which the other had already entered. Never but once have I seen society membership fail to work a greater or less improvement in the mutual relations of antagonistic practitioners. In that case the rival surgeons had their names on the roll of an association, meeting once a week. Without any arrangement between them to that effect, it always occurred that one came to the sessions of the body one week and the other the next, and thus they alternated for several years, continuing the habit up to the present time. Thus we see that, as a rule, excuse number two, like number one, proves no objection to organization, but rather tends to render it desirable.

Third, press of business. God speed the overworked physician in his mission of philanthropic healing. I would not add a straw to his already heavy burden. But is it a burden to keep up membership with a live society? Is it not a duty that ought to be of a pleasant nature? My brother-laborer, if you are doing so much business do you not owe it to your patrons, to yourself, and to the great cause whose devotee you are, to give and receive all the wisdom you can for the better performance of those very duties you daily engage in. If so busy, then probably you have little time for reading. Make it up by devoting at least one day per month to society attendance. If you are already old you cannot fail to learn *something* new, which may enable you to simplify or improve your methods of labor so as to gain time, lighten your work, or at least do

your patients full justice by giving them the benefits of all that is known, or done, in cases similar to theirs. He who knows enough has lived out his day of usefulness, and is in a complacent state of mind most favorable for immediate translation to another sphere. He ought to go at once, ere he again grows ambitious, and covetous of something more. Again, if you have grown gray as a busy practitioner you have enjoyed a wide field of observation and experiment, and you possess a valuable fund of information. As you, at first, freely received from your predecessors the knowledge on which your career began, so you owe it to your younger brethren to meet them, and impart to them such new and useful ideas as you can. So "too busy" is no good reason for holding aloof from medical societies. The busier one is, the greater his obligation to learn and to teach. If he cannot attend monthly society meetings let him go every two months or every quarter as he can. He will, in the end, find himself well repaid for the trouble and time thus spent.

Lastly, we come to consider the oft-urged plea of no organization. "We have no society in our locality," is the ostensible reason for not reaping the benefits of one. Why have you none? Dr. A., or Dr. B., or Dr. C. have never tried to form any, or have failed in the effort. Well, is it any more Dr. A., B. or C's business to take the initiatory than your own? Not at all; particularly not; if you really want one in your locality. *Go at it yourself.* If you are for sometime established where you are, write out a call for a preliminary meeting, at a certain time and place, to consider the feasibility of organization, and head the list of callers with your own name. Then get two or three other practitioners to sign said call with you. If you can not see them in person, get their assent by mail, and issue your call in the nearest newspaper. Lacking a paper, use the mail again, or the village post-office door, or any public place. Publish it. Get word to every physician within a radius of twenty-five or thirty miles, and I will guarantee that at the appointed time a sufficient number of doctors will put in an appearance to constitute a respectable nucleus for future growth.

If you are a junior practitioner in the locality do not be deterred from action when the seniors fail to move. Write

out your call, get the older physicians to sign it, then put your own name at the foot of the list and publish it. This last cause is the most prolific preventive of the organization of societies—each one waits for another to move. When I returned to my present location from a Western residence, I felt badly to give up my active connection with the medical society there, and come to a place where none existed. I determined not to be debarred from society privileges. Coming to a section where no association of the kind had ever existed, I early wrote my call, got four physicians out of six in my town to sign it, got consent to use the names of several others at distant points in the county and issued the document. Eight or ten doctors came to our meeting and the Hiwassee Medical Society had its birth then and there with no flattering prospects, and but a handful of members. Month by month it grew, by a little exertion on our part, and, after only eighteen months of existence, it to-day embraces in its territory five counties and a goodly membership. Thus was accomplished here, where professional strife ran unusually high, what the medical fraternity had individually longed for for twenty years or more, but what had never been taken hold of in earnest by any one. It was a matter of no trouble at all to light the spark, which early grew to a flame. Any one could have done it as well, some better, than myself. Each month we come together and enjoy a day of social pleasantries and professional refreshing. Old feuds have been forgotten, grievances forgiven, and we are welded into a common brotherhood for mutual improvement and the sustaining of our common dignity as medical men.

One month we meet at one point, the next at another, so that our most distant members may enjoy occasional meetings near home. Sometimes we have to ride fifteen, twenty, or more, miles, by rail or overland, in heat and cold, wet and dry, but we go just as often as we can, and feel amply repaid for the inconvenience we undergo to be present. And this can be done anywhere. In town and country the physicians are ready to organize if but one energetic mind will take hold of the matter and set the ball in motion. No one can imagine the revolution in professional affairs which such a movement occasions, especially in country sections where none has taken place before. To witness it is the only way to be convinced.

Then I would urge upon my fellow physicians in such localities to try it. Take action personally, vigorously and with patience where much effort is needed, persist in agitating, get your societies formed and then attend them regularly if possible. Let nothing but the most imperative demands cause your absence. Take part willingly in the proceedings, no matter in how humble a manner. Teach your brethren what you can. If you have nothing to teach them, then learn from them, but do both when it is possible. If your membership chances to be too scattered for monthly meetings to be practicable, meet every two, three or four months as circumstances will warrant. But have your sessions with regularity, and as a rule, the more frequent they are, the more interest will be manifested, and the better will your attendance be.

Try it, at least. If failure come no harm results. When one organization is effected others usually follow soon in the neighborhood. The profession becomes a unit with single purposes; quackery and divers impositions on the public credulity can be authoritatively and with unison decried, exposed or stamped out; you who were before bitter rivals, will be astonished to find how pleasant association with your peers is; backbiting ceases, ethics obtain the ascendancy, fees can be regulated, the general public enlightened on sanitary subjects, and thus your duties made easier and pleasanter, and regular practitioners who fall into irregular habits can be frowned down and driven into private life. And, as societies multiply, many and much needed reforms in medical polity, medical education, etc., can be more readily brought about, by co-operation among these bodies and the welding together of the great body professional, at present so scattered, yet having common interests all over the world can be had. Let us move, then, and move with a will. Let the country come up to the help of our cities, let the towns and villages, the hills and valleys, the prairie and the woodlands muster their little corps for self-improvement and the up-building of our glorious science by concerted and harmonious action.

AN ANOMALY IN OBSTETRICS.

BY A. H. WILSON, M.D., JONESBORO, TEXAS.

A very remarkable case of obstetrics, occurred in my practice, and at the request of some friends in this section, I prepared and published a statement of it more particularly for the people in this immediate vicinity, the circulation of which has resulted in quite an extensive correspondence from a distance. Among the number of correspondents are several of our most eminent practitioners and professors; several of whom have requested me to prepare a statement to be published in a medical journal, that the members of the profession generally may have an opportunity of investigating it. The unusual phenomena presented during the progress of the case, with the singular abnormal condition of the uterine contents, constitutes it a very remarkable case indeed; one of unusual interest to the medical student, practitioner and professor.

CASE: Mrs. M. was near her sixth confinement, on the 12th of April, 1878; she did the washing for a large family; she was twenty-eight years old, very fleshy, and below the medium height.

At 6 A.M., of the 13th, she was attacked with pains; they continued through the day and night, and up to the time I was sent for, which was 6 P.M., the 14th. The pains were sharp, short and very ineffectual. Her strength failed gradually from the commencement of the pains, and at the time of my arrival, the pains were not so frequent, but seemed to be more forcing; the patient was very feeble, with an anxious expression of countenance, restless, and turning from side to side, sitting up, very talkative, the surface cool and damp, pulse feeble, quick and hard, and breathing quick and laborious. At 7 P.M., I made an examination, per vagina, finding the os uteri dilating, and a natural presentation. I assured her that labor was progressing as favorably as could be desired, urging her to remain quiet; the pains were now more effectual, and she was more restless as the labor advanced. At 9 P.M. the os was open as large as a half dollar; the membrane could be distinctly felt at this time, and the progress of labor was so favorable, that I used every means to induce the patient to remain quiet; reminding her of the importance of controlling

herself, and the danger of the course she was pursuing. She replied:

"I know all you say is true, but I cannot help it; I feel like I was smothering all the time."

She continued to toss from one side of the bed to the other; during which time the progress of labor was slow, but regularly advancing. At 11 P.M., the liquor amnii passed; the head at this time passed into the vaginal canal; the pains from this time were very effectual and regular; the patient was very restless; indeed from this time it seemed she could not control herself, and neither could she be controlled by any means we could employ. She remarked:

"I cannot be still; I try, but cannot help moving;"

And said she must get out of bed, that she was smothering, and if she did not get up she would die. My protest availed nothing; she was taken up and placed in a chair; in a few moments she complained of being sick, and wished to be helped back to bed; which was done; she was in bed but a moment, when she fainted, but soon recovered. Her skin was cold and clammy; pulse very weak and thread-like; the expression of her countenance was such that I can never forget it; so wild, and yet imploring. Before I could determine my course, the child, weighing eleven and a half pounds, was expelled. Another surprise was then experienced, for not a drop of blood passed with the child. Before the cord could be tied the patient fainted; again I directed the usual restoratives to be used; she soon revived; so soon as I tied, and severed the cord, and handed the child to the nurse. I examined the pulse, and found it scarcely perceptible; could not count it; surface cold, and covered with a clammy sweat. I supposed there existed concealed hemorrhage; I was sure that if hemorrhage was the cause of her condition, it was concealed; I sought for it in the abdominal cavity; there was no evidence of it there; I felt for the womb, but could not find it, though the abdominal wall was very flaccid; not finding the womb, I grasped the cord with the left hand, and passed the right into the vagina, using the cord for a conductor. I pushed the hand into the uterus, finding the placenta attached a little beyond the cervix; I detached it with the finger; the patient was so uncontrollable that I withdrew my hand, making gentle traction on the cord; there

was no movement of the placenta; I feared I had not detached it entirely; I introduced the hand as before, passing it into the uterine cavity, grasping the afterbirth, I found it free, and lying in a placid uterus; indeed the walls felt like a wet buck-skin sac; I turned the hand around, and felt a slight contraction—withdrawing the hand, the placenta followed. At this time there was a slight pain, which expelled the afterbirth with some force, as it dropped clear of the vulva, and fell on the bed.

Strange as it may seem, not a drop of blood escaped from the vagina up to this time; the bed was not stained, nor was there any in the uterine cavity when I introduced my hand; the absence of blood, up to this time, I assure you perplexed me greatly. Connected to the placenta, by adhesion, as it seemed, was a membranous sac; the placenta appeared normal, rather pale in appearance; the connection was very distinct and easily traced by a faint white line. The appearance of the sac and placenta, as they were lying on the bed, was such as we sometimes see with twins. With the first, the membrane burst, and the child is pushed out without covering; the second passes with the afterbirth attached, the membrane containing the child and liquor amnii remaining unbroken. After examining the sac, and finding it contained nothing but fluid, I ruptured it, and emptied the contents—(blood,) four or five quarts. The sac was of a membranous substance, very similar to the foetal amnion. Taking up the placenta, I felt something in it which I at first could not account for. I examined for the point that this substance passed into its present location; finding none, I noticed that there was a delicate filament extending from the vagina to within the placenta; in order to learn what it was, as it was concealed in the placenta, I with the scalpel sliced off the placenta, and found the tumor imbedded therein just as a peach seed is found in the peach. The tumor was very smooth, and nearly the size and shape of a goose egg, with this filament, attached to it. In pressing it, the resistance was similar to that of a rubber ball. I returned this tumor back into the womb with facility, using only one hand for the purpose. The patient was sinking all this time; (from the birth of the child to the expulsion of the afterbirth was perhaps five or ten minutes;) I had no stimulants to give

her, therefore sent for Dr. Pope, who arrived 4:30 A.M., on the 15th. He made an examination, per vagina, and with the finger reached the os, which he found nearly in its natural position. At this time there was a slight discharge of what he called "bloody water." With this exception, there was no discharge from the uterus from the birth to her death; which occurred at 5 A.M. on the 15th. Forty-two hours elapsed from the first pains to the expulsion of the placenta.

I have given all the important particulars of this very curious case, and give it to my professional brethren with the hope that it may not be uninteresting; and to the inquiring or investigating mind, that the curious phenomena presented during the progress of the case, and the singular abnormal conditions of the secundines, will be clearly and practically solved.

The points of interest involved in this case are:

First. Of what, and how was the blood sac formed?

Second. What was the cause of hemorrhage?

Third. When did the hemorrhage begin?

Fourth. How did the blood pass into the sac?

Fifth. What was the substance found in the placenta?

The solution of these questions will account for the abnormal condition found existing in the flaccid uterus and its contents. In order to arrive at a rational explanation of these questions, we should take them up in the order they bear on the case.

First. Of what was the sac formed?

Answer. The placenta being formed of the chorion, the ovum, at a certain time, burst its chorion covering; the chorion shrinks and falls back to the placenta, as some physiologist express it, forming a kind of cushion for the placenta. Now it is not possible for the decidua, after serving its time as the covering for the ovum, falling on the placenta, and forming around that organ as it does, to be the material from which the blood sac was formed.

Second. What was the cause of hemorrhage?

Answer. It was external injury received on the 12th.

Eighteen or twenty-four hours before the pains commenced, a woman bending over a wash tub, perhaps a wash board in it, so near her confinement, would most likely detach a portion

of the placenta from its uterine connection. Now in this case, I suppose it was only detached in the center of the placenta; the rim, or edge, remaining undisturbed; this being the case, we can understand why there was no discharge of blood at the birth of the child, and none found in the uterus, for the blood had all passed to the sac, and was sealed up therein.

Third. Where did the hemorrhage begin?

Answer. I believe it commenced to flow from the uterine sinuses at the time the placenta was partially detached. The detachment was but a small portion, hence the system was not affected by the loss of blood, until the placental attachment was further broken up, by the accumulating blood between it and the uterine wall, which by 6 A.M., the 13th, was sufficient to cause the system to feel its loss as was evident by a growing weakness from this time to the end of the patient's existence.

Fourth. How did the blood pass into the sac?

Answer. The placenta, being a vascular, fleshy excrescence, attached to the uterine wall by adhesion, is easily detached. Now, in this case, it is but reasonable to suppose that a portion was so detached by an injury received on the 12th, leaving a portion of the uterine sinuses open, through which blood flowed into the detached portion, the weight or force of blood being sufficient to detach the placental adhesion, according to its requirements. The placenta being of a spongy and distensible substance, gave way and permitted a large amount of blood to be there concealed. By the Endosmotic process the blood was conveyed through the placenta, and meeting with a distensible membrane (which I suppose was the reflex decidua) the blood, pressing upon this membrane, caused it to distend into a sac, adjusting its capacity to the demand made upon it by the blood, which had now made a channel through the spongy substance of the placenta. Without any obstruction the blood flowed from the veins, which permeate the womb, they having been ruptured by external violence, or from the blood rushing through them with such force as to rupture their now exposed endangium. Yet, the flow from the rupture was somewhat obstructed until the process of endosmosis was established and the channel through the placenta opened to the distensible sac, then the blood flowed unobstructed through the open mouths of the uterine sinuses.

That the supply was exhausted is evident from the condition of the patient, and the absence of any flooding during the process of parturition. That this was a gradual drain, for a considerable time, is made to appear from the restless and gradually sinking condition of the patient from 6 A.M. of the 13th, which kept regular pace with the flowing blood as it seemed.

Fifth. What was the substance formed in the placenta?

Answer. From the firm, elastic feel of the tumor, we might suppose it to be a polypus, or a fibroid, but from the fact that it was connected to the uterus by a slender filament, it could not be either of these. I am inclined to the belief that it was a mole, the result of a blasted ovum. When it perished it lodged in the membrane of the womb. Instead of taking the usual course, its place of lodgment happened to be the point where the placenta was to settle on the uterine wall. The tumor not being dependent on the placenta for its support, but receiving its support as the placenta from the womb direct by a delicate filament. The placenta, in its growth and adhesion to the womb, enveloped the tumor, and lifting it from its lodgement, thereby encasing its own substance.

This is the only solution I can give of the tumor, as it was completely encased in the placenta. I have now given my statement and views of this very peculiar case, and hope my professional brethren will favor me with theirs, either through the JOURNAL or direct to me.

TABES MESENTERICA.

By S. W. JOHNSON, M.D., ATLANTA, GA.

The lymph apparatus within the small intestines, both vessels and glands, is possessed of greater interest than is usually considered, as it takes part in nearly all affections of the intestinal canal. All the inflammatory affections of the canal may cause more or less swelling and reddening (hyperæmia) of the mesenteric glands; they are, however, more particularly and seriously involved in typhoid fever, tuberculosis and scrofula.

The term *tabes mesenterica* is generally applied to any engorgement or tubercular degeneration of the mesenteric glands with emaciation and derangement of nutrition. More properly it is a scrofulous affection of the glands and is most frequently found in children.

The typhoid process usually causes no other changes than the medullary swelling, but still cases occur in which larger or smaller portions of the parenchyma become of a yellow color, or sometimes in a state of complete softening, those opposite the termination of the ileum in the colon being involved, the process extending from the intestine along the lacteals to the glands.

In tuberculous affection of the mesenteric glands the process also advances from the intestine towards the root of the mesentery ; it is always the row of glands nearest the intestines that first presents the tubercular eruption or greatest change.

The tubercles first appear in the cortical portion of the glands, but the medullary portion is not exempt, and as they undergo cheesy degeneration, the whole glandular parenchyma may become converted into a homogeneous, yellow, cheesy mass.

In scrofulous affections of these glands they also become cheesy and much enlarged—in children they become as large as pigeon's eggs and in adults still larger. The largest nodules are formed by a confluence of a number of the glands, and are frequently found at the root of the mesentery. They appear so yellow, firm and homogeneous upon section that the surface has been compared to the section of a raw potato, the moisture only being absent. The process does not, as in the other two conditions, advance from the intestine along the lacteals to the mesenteric glands, but like scrofula in other parts of the lymphatic system, it is first developed in the gland itself. In some instances the number of glands involved, or the enlargement of those diseased, is not sufficient to produce that amount of obstruction to the passage of chyle, which would interfere materially with nutrition ; the chief source of danger, however, from this disease proper, is from the obstruction the chyle meets with at the cacoplastic gland, preventing its passage through them and into the thoracic duct.

The symptoms of the disease are not very positive or diag-

nostic. So long as the glands remain only moderately enlarged, buried as they are beneath the small intestines, it is difficult to detect their presence by palpation ; especially is this the case when the enlargement is confined mainly to the glands near the root of the mesentery. The most prominent symptoms, and those to be mainly relied upon, when the presence of the enlarged glands can not be detected, are : emaciation, progressing more rapidly or slowly, in proportion to the prevention of absorption of chyle ; anorexia, or a capricious appetite ; diarrhoea ; swelling of the abdomen, which is more of a globular than oval shape ; listlessness ; absence of any particular pain, and, towards the end, hectic fever. The prognosis is generally quite unfavorable, but we should bear in mind the possibility of recovery, where the hereditary tendency is not too strongly pronounced and the actual tuberculous deposit not excessive or rapidly progressing.

The treatment must, of course, be upon general principles, the nature of the cause and the stage of the disease being taken into account. If dependent upon a tuberculous diathesis, the remedies appropriate in tuberculous deposits in other portions of the system, as in the lungs, spleen and bronchial glands, are also appropriate in this affection. Where the enlargement of the glands is due to scrofulous cachexia, iodine in the form of the compound tincture, solution or iodide of potassium—iron and its various preparations, and cod liver oil, are indicated. The syrup of the iodide of iron appears to be especially useful, and this may be well given alternately or in conjunction with the iodide of potassium.

Where the cod liver oil can not be administered internally, we think good results may be obtained here, as under similar circumstances in other wasting diseases of children, by the use of the oil by inunction.

When the glands are enlarged to the extent of interfering materially with the passage of the chyle through them, we think attention to the diet of the child is of the very greatest importance ; the most bland, unirritating, digestible, and, at the same time, nourishing food being selected. Of course, strict attention should be given to dress and other hygienic measures. When the diarrhoea is excessive, the various astringents, in combination with opium, should be given freely.

If the enlargement be due to a previous acute or chronic inflammation of the intestinal canal, mercury, muriate of ammonia and counter-irritation by means of friction, dry cupping or pustulants, in conjunction with the proper regulation of diet are the proper measures to be adopted.

During the month of October last, I was called to see a negro child, three years old. It had been treated during the previous summer by a city physician of this place for typhoid fever, and had been in very feeble health ever since. Was very much emaciated—almost a “living skeleton”; it lay with eyes half closed, in a listless mood, being perfectly indifferent to everything transpiring around it. Abdomen considerably enlarged; occasional diarrhoea, alternating with constipation; appetite generally good; no cough, lungs sound. The mother and father apparently in good health, both denying having ever had syphilis. They had two other children which presented no appearance of constitutional trouble.

We first suspected worms, and accordingly ordered an anthelmintic composed of santonin and calomel, which caused one small worm (*lumbricus*) to be passed the following day. On our second visit, two days from the first, we decided, after a more thorough examination—although unable to detect positively the enlarged glands—that it was a case of *tabes mesenterica* from scrofulous enlargement. It was too late, however, for remedies to benefit the child, as it died two days later.

Assisted by Drs. J. G. Westmoreland, J. O. Perkins, and Mr. C. C. Maddox, we performed a post mortem examination which verified our diagnosis. Most of the glands were enlarged and in a state of cheesy degeneration; they were of all sizes, from that of a millet seed to a pigeon's egg—the largest being located near the root of the mesentery, nodules of the glands being found here as large as the child's fist. No lesion was to be found in the intestines or other abdominal viscera.

Reports of Societies.

ATLANTA ACADEMY OF MEDICINE.

ATLANTA, December 2, 1878.

Dr. J. F. Alexander, President, in the chair.

Dr. H. L. Wilson reported a case of anginose scarlet fever. Taken sick on the 23d. On the 24th, headache; had sore throat and sick stomach, with fever and vomiting at night. High fever on the 25th; redness of fauces and enlargement of tonsils. Suspected roseola. Throat causing uneasiness; cauterized it with nitrate silver, and since then has used gargle of alum. On the 26th, eruption well out. Intense itching relieved by inunction of mutton suet and occasional tepid sponging. Nausea was most troublesome. Desquamation going on now. All the typical symptoms well marked.

This was the first case the Doctor had seen since the war. Since the fever has been reduced the pulse has been rather weak, and he has given egg-nogg.

Dr. Salm reported a case, the symptoms in which, as given by patient, were sudden pain over stomach while occupied in store in summer of 1877. Pain continued and extended down left side up and over left shoulder and down right side. In store he has no trouble, but on street is violently attacked. In morning he has attack of belching. About nine years before first taken, had rheumatic fever, and same summer had had rheumatism of foot. He believed it dyspepsia.

Dr. Todd agrees with Dr. Salm in diagnosis. Recommends ingluvin, or if *sarcinæ ventriculæ* are present, sulphurous acid, or sulphites.

Dr. Calhoun reported a case of enlarged tonsils, producing deafness and difficulty of breathing. The girl, eleven years old, has had the trouble five to six years. Tonsils so much enlarged as to touch. Difficulty of respiration marked at night. Deafness commonly a result of the trouble, produced by chronic inflammation of the eustachian tube, and from pressure on the pharyngeal openings of the tube. Day before yesterday he removed the tonsils. He seized the tonsil with large bull-

dog forceps, and cut it off with a curved, probe-pointed bistoury; cutting upwards; and found no trouble with the first gland, but the patient struggled when the second was to be removed, but a few whiffs of chloroform quieted her. The child has slept better since the operation than before since the affection began, but cannot tell yet what effect there will be upon her hearing.

He related another case, similar to the one above reported, where hearing improved wonderfully.

Dr. Todd asked the practical difference between the eruption in diphtheria and scarlet fever.

Dr. Wilson does not believe many cases of so-called diphtheria is diphtheria; for in diphtheria eruption is confined to the face, and in scarlatina it is more diffused. In scarlet fever the skin is smooth; in diphtheria it is rough, and is punctate; in scarlatina diffused.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

The President, Dr. Lenox Hodge, in the chair.

C. S., æt. 29, a sailor, died in my ward at the Episcopal Hospital, on October 12th, from catarrhal phthisis. Several months before coming under my care he had suffered with cystitis, for which disease he had been treated in the surgical ward of the hospital.

When admitted to the medical ward he presented all the ordinary rational symptoms and physical signs of advanced phthisis. His urine was examined, though there were no symptoms directing attention particularly to the kidneys or bladder, and found to be of low specific gravity, 1012, and to contain a small amount of albumen. The autopsy was made nine hours after death. On opening the thoracic cavity the lungs were found to be bound to the chest-walls by numerous pleuritic adhesions. The upper lobes of both lungs contained large cavities, while the remainder was infiltrated with caseous material. The heart was normal in size, its muscular tissue was pale and somewhat flaccid, and one leaflet of each of the semi-lunar valves was fenestrated. The liver was large and fatty. The kidneys were quite different in appearance. The left was

slightly enlarged, and presented the gross characteristics of the "large white kidney." The right was also larger than normal, and had a lobulated appearance externally; on section this lobulation was found to be due to saccular dilation of the pelvis and calyces, the various sacs being filled with a turbid, urinous fluid, and having thick walls. The largest sac, nearly an inch in diameter, was situated in the lower part of the kidney, and approached very near the external surface, leaving only a thin layer of condensed leather-like renal tissue. The glandular structure of the rest of the kidney was not reduced in thickness, but was much firmer than normal, felt rough to the finger, and was studded with little nodules, which to the unaided eye appeared to be collections of miliary tubercles. In removing the kidney the ureter was torn off a short distance from the organ; the tube in this position was moderately dilated, and its wall was thickened and friable. The mucous membrane of the bladder was thickened and rough, and was covered with tenacious mucus; on the peritoneal surface a large number of small nodules, about as large as split peas, were observed. Similar nodules were also found on the intestinal peritoneum.

Report of the Committee on Morbid Growths.—"A microscopic examination of a section of the kidney presented by Dr. Starr shows the glandular part of the organ to be very much altered; the tubules are to a great extent deprived of their cells, and surrounded by fibrillar connective tissue in a state of proliferation. The capsules of the Malpighian bodies present a similar arrangement of structure. The miliary nodules scattered throughout the organ consist of a central granular mass, the periphery of lymphoid cells, in a stroma of delicate, reticulated fibrous tissue. The organ exhibits the lesion of acute tuberculosis.

"The new formations situated in the peritoneum covering the bladder are composed of elements similar to those found in the nodules of the kidney, and have a like arrangement.

Gelatinous Arthritis of Knee.—Presented by Dr. H. Lenox Hodge for Dr. John Ashhurst, Jr.—The specimen presented is the lower extremity of the femur, articulating surface of the tibia, and patella, from a patient whose thigh had been amputated the day before by Dr. John Ashhurst, Jr., at the Children's Hospital. The case was one of arthritis in a child of ten

years, the subject of hereditary syphilis, who had been under treatment in the hospital for more than eighteen months. The first incision had been made as if for excision of the knee, but, the bone disease having been found too extensive to justify this operation, anterior and posterior flaps were cut, and the thigh amputated at its lower third. The specimen showed very well the characteristic gelatiniform change in the synovial and cartilaginous tissues, while the bone was markedly carious.

November 20—The flaps united by adhesion, and in ten days, the ligature having come away, the patient was looked upon as convalescent. Uninterrupted recovery followed the operation.

Primary Cancer of the Intra-thoracic Glands.—The patient, a blacksmith, æt. 40, was admitted to the Philadelphia Hospital suffering with large pleural effusion on left side, extreme dyspnoea, husky whispering voice, and slight dysphagia. The history was obscure. It appeared that for two years there had been occasional dysphagia and increasing huskiness of voice. For past three months there had been increasing dyspnoea. On careful examination, the physical signs of pressure on right bronchus were detected, and some hard and enlarged lymphatic glands were found in left supraclavicular space.

The diagnosis was made of primary cancer of intra-thoracic glands, pressing on right bronchus, œsophagus, trachea, and azygos vein. Death occurred suddenly from syncope.

The autopsy revealed cancerous disease of the glands in both anterior and posterior mediastinum, forming masses of considerable size. The right bronchus was compressed. The œsophagus and descending thoracic aorta were partly imbedded in the cancerous growth. The azygos and hemiazygos veins were involved, and so imbedded that it was impossible to dissect them out. Large pleural effusion existed in the left side.

Report of the Committee on Morbid Growths.—"The specimen of intra-thoracic new formation presented by Dr. Pepper, and referred to the Committee on Morbid Growths, is found, by microscopic examination, to consist of a fibrous tissue stroma arranged so as to form alveolar spaces, in which spaces are seen epithelial cells. This arrangement of structure is characteristic of carcinoma—variety scirrhus. The enlarged glands

from the neck have undergone a similar metamorphosis, as shown by microscopic examination.—*Medical Times*.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

A conversational meeting was held at the hall of the College of Physicians, Philadelphia, November 27, 1878, Dr. J. Solis Cohen, Vice-President of the Society, in the chair.

The Question of Tracheotomy for Laryngeal Paralysis.—Relief of Asphyxia by Ice.—Dr. M. O'Hara made some remarks upon a case in which the necessity for tracheotomy was averted by the systematic application of intense cold, in a child suffering with acute laryngitis.

Dr. R. A. Cleeman referred to a case of capillary bronchitis in which anæsthesia of the nerve-centres was set up by the retention of carbonic acid in the blood, on account of the difficulty in getting air into the lung. The case was given up by the physician in charge, but the application of ice to the skin stimulated respiration, produced better aeration of the blood, and the child recovered.

Dr. O'Hara said that the urgency of the symptoms must be taken into consideration as one of the indications for tracheotomy. Although in the case reported the suprasternal and intrathoracic soft tissues sank in with each effort at inspiration, showing impediment, there was no obstruction to expiration, the blood received a fair quantity of oxygen, there were none of the signs of suffocation such as we see in capillary bronchitis, and there was no time when the blood was so deficient in oxygen as to require an operation. One of the great difficulties in regard to tracheotomy is the need of exact indications for the time of its performance; and the case was reported as a contribution to this subject.

Dr. Nancrede agreed with the lecturer, and stated that where the difficulty in breathing only comes on at intervals and in paroxysms, tracheotomy is not indicated; but where there is manifestly less air rushing into the chest, and the obstacle to its ingress becomes permanent, if the state of the child otherwise warranted the operation, he thought that such cases are just the ones for tracheotomy, which should not be deferred until the child is exhausted.

Dr. W. R. D. Blackwood said that the subject of tracheotomy is always one of great interest, but probably there is no other operation in surgery about which more diverse views of its utility have been expressed. One explanation of such a doubt may be found in the fact, as suggested by Dr. Nancrede, that it is generally performed too late. He had had two cases of tracheotomy in this city, and had assisted in several others. The importance of early operation is not sufficiently dwelt upon, and it should be brought more prominently before the profession. Physicians are inclined to wait until all other resources have been tried and failed. In his first case, one of membranous croup, he had fully determined to operate as soon as symptoms of suffocation came on, but the family then objected, because the child looked so well: when he got manifestly worse they consented, but it was too late. He was satisfied that if performed earlier it would have been successful; the child lived only a few minutes after the operation. The second case recovered after tracheotomy.

The application of cold in this connection is new, but the fact of its stimulating power in other cases is well known. In chloroform-narcosis, a piece of ice in the rectum will produce inspiration after breathing has stopped, and ice in the vagina will produce reflex contractions of the uterus.

Probably the case reported would have recovered under other treatment as well. There could not have been a closure of the glottis; for in that event, if there was no room for it, no amount of stimulation would have allowed the air to get past. If the trachea were closed, the application of the cold would have done but little good.

Dr. O'Hara believed the trouble to be due to paralysis of the muscles that dilate the glottis. The application of cold overcame this, just as water thrown on the face of a new-born child causes deep inspiration.

Dr. Nancrede said that if there were actual paralysis of the glottis, strong inspirations would increase the dyspnoea, by sucking in the valve-like cords, while gentle breathing would not disturb them. On the other hand, complete paralysis would not be relieved by the application of cold.

Dr. O'Hara said that Dr. Chapman, in his writings on the effects of the application of ice to the spine, which he had

seen since writing his paper, also refers to the use of ice in croup and other diseases. The result in his case must have been due to the reflex action of the cold upon the brain. There is no doubt that this case recovered without a severe operation, and that an operation might have been the cause of his death. More precise rules for tracheotomy should be formulated from the teachings of experience.

Dr. Nancrede, having operated upon a number of cases, spoke from experience, in saying that paroxysmal dyspnoea was not an indication for operation so much as permanent laryngeal obstruction.

The Chairman had seen this case, which was a very interesting one, and believed it to be just the kind that had been referred to by Dr. Nancrede. There was no obstruction to expiration, but the stridor kept getting worse and worse. He had seen the same in adults, and Niemeyer speaks of seeing it in children, and considers it part of the history of croup. In adults there is nothing to be done but tracheotomy, which must be performed sooner or later, or the patient will perish.

The child he had been called in to see in consultation by Dr. O'Hara was suffering from the difficulty described, but as it was in apparent good condition, although just recovering from scarlet fever, he hesitated to recommend tracheotomy. Immediately upon the application of the ice to the neck, he took a deep inspiration. This artificial respiration was kept up for more than thirty hours, as mentioned, there being no deposit in the larynx and no obstruction to expiration.

He had another case in an adult recently in the same condition, but ice had no effect. Many of those cases where death from croup has occurred without deposit in the larynx, are precisely like the present, and due to paralysis of the dilator muscles of the glottis. The device of putting the cloths between two blocks of ice is a good one, as it keeps them cold all the time.

In reply to a question from Dr. O'Hara, he stated that he never had had the courage to use electricity in this form of paralysis, for fear of exciting spasm of the glottis and killing the patient.

Compound fracture of anatomical neck of humerus.—Presented by Dr. C. B. Nancrede.

This specimen, and the case from which it was removed, have seemed of such unusual interest as to induce me to offer them for your consideration this evening. Similar injuries, or rather injuries requiring similar treatment, are not unusual in military practice, but are very rarely met with elsewhere. I will first show the specimen, next describe the injury, and then exhibit the results, after which I will explain my reasons for the course pursued. The portion which I hold in my hand is, as you see, the upper four and a quarter inches of the diaphysis of the left humerus, completely stripped of all muscular attachments and periosteum, except at its posterior aspect, where a triangular slip remains, a portion of it being very thin, evidently consisting of only a few of the deeper layers. This portion is the upper epiphysis, the line of fracture passing through the epiphyseal line except at one or two points. The shaft is slightly split, while the shell of bone connected with the head is fissured at various portions of its circumference, as if the shaft had been impacted, thus wedging it apart. Further description of the specimen is involved in the description of the case, which I will now proceed to give.

The patient, J. McC., a boy aged 14 years, fell from a tree, some twenty-five feet, upon his elbow, on the afternoon of Sunday, September 23, 1878, landing on the ground, striking in his fall against the limbs of the tree, and sustained the following injuries in addition to those now detailed. The broken shaft was driven through the skin covering the lower portion of the deltoid muscle on its anterior aspect, tearing in its course the following parts. The insertion of the deltoid was completely stripped off with the subjacent periosteum; the coraco-brachial, teres major, and latissimus dorsi were in like manner torn off, the latter carrying with them the posterior lip of the bicipital groove. The tendon of the pectoralis major was torn off about half an inch from its insertion, and one if not both heads of the biceps were ruptured. In consequence the head and neck of the bone, deprived of periosteum, merely hung suspended from the glenoid cavity by its capsular ligament and the rotator muscles. The upper end of the lower fragment must have almost grazed the brachial artery, its point of emergence through the skin being not more than about three-fourths of an inch from its course. As you see, the patient now, about ten weeks

since his injury, has a surprising amount of movement of his new joint. Seven weeks after the operation he removed his coat, vest and shirt without assistance. He can readily put his hand to his mouth, behind his back, and on his ear. He enjoys perfect use of his forearm, but of course has lost nearly all power of lifting the arm from the side. All of these motions are unattended with pain. Although four and a half inches by actual measurement of the bone have been removed, the actual shortening only amounts to a scant inch and a half, the new joint having formed apparently on the third rib.

The course of treatment pursued, and my reasons for deciding upon it, seem worthy of detail, since such injuries are but seldom seen, and, as far as I can discover, no clear rules have been laid down for their treatment. To the members of this Society who devote themselves especially to surgery I need hardly say that no question of amputation arose in my mind; but to those in pure medical practice I would say that when the main vessels and nerves of a limb remain intact, the injury to the soft parts having been produced by the bone itself, not the fracturing force, almost any degree of shattering of the bones may be recovered from in the young without operation. Two lines of treatment then offered for consideration, viz.: the return of the bone, closure of the skin-wound, drainage, and trusting the case to nature, or the resection of the injured bone. Theoretically the first would have seemed the better course, promising no shortening of the limb, and the retention, in a measure, of the power of the deltoid. In reality, however, the chances of union were not one in a thousand, and if not union then necrosis with its consequent shortening; necrosis, too, meaning months or years of inflammation and suppuration, matting the muscles together so that when recovery occurred—almost necessarily by an operation—the usefulness of the limb would be but slight. Resection, on the other hand, offered the complete removal of all injured portions of bone, and with them the most important factors of trouble after such an injury, thus permitting rapid healing, and the least possible inflammatory adhesions of the muscles, tendons, etc. If the bone had been simply returned, the risk to life would have been greater, owing to the prolonged suppuration incident upon the separation of the necrosed bone and deep-seated abscesses so common af-

ter compound fractures. Against it was the absolute shortening of the arm, with the prospective cessation of growth due to the removal of one of the humeral epiphyses.

The actual result, I think, bears me out in the course of treatment pursued, for I hardly think that he would be here in as good condition, with the wound soundly healed, if I had followed what is often, but falsely, called the "conservative plan" of treatment. I believed that true conservatism indicated exactly what I did. The amount of shortening would not have been much less had the case been left to nature and necrosis. Had this occurred, union of the severed head could hardly have taken place; and then the same shortening would have obtained as surely as if the epiphysis had been removed. Army experience has shown that when a portion of the upper end of the humerus is removed for injury, nothing is gained by leaving the uninjured head, since it necroses. Although not cognizant of this fact of experience at the time of operation, anatomical knowledge, general surgical principles, and experience induced me to arrive at a conclusion by a priori reasoning which I have since found that extended experience had already proved. I believe, therefore, that theoretically and from experience, resection ought to be performed for such injuries. It is hardly necessary to say anything about the operation itself, since each case must be a rule for itself, the only point being to remove the bones with as little additional damage to the soft parts as practicable. The wound was dressed antiseptically, and when I transferred the wards to my colleague, Dr. Packard, no suppuration had occurred, and there was not the slightest inflammatory blush about the wound. He did uninterruptingly well, and the wound was soundly healed in less than seven weeks, the greater part at a much earlier date, however.

Dr. Charles T. Hunter believed that there had been positive reproduction of the bone. The shaft extends to lower margin of glenoid cavity, and he recognized the insertion of the pectoral and latissimus dorsi muscles. If the bone had been restored to its place, he believed that the periosteum would have regained its attachment; there is no doubt that the head ought to have been removed, as its nourishment by the anterior circumflex artery was cut off.

Dr. Nancrede said that the idea of saving the bone had occurred to him, but he had adopted what seemed at the time of the accident to offer the best results, in view of the possibility of necrosis.

Treatment of fractures of Humerus.—Dr. J. Levis said that the case had been well treated, and the result was excellent. He had for a long time considered the ordinary routine treatment of fractures of the humerus in the vicinity of the shoulder as very unsatisfactory. The displacement ordinarily is of the upper fragment outwards. Representing, by a diagram, a fracture in the upper third, we find that the arm is shortened by the overlapping of the fragments. This shortening is easily overcome by carrying the elbow out from the body and making extension,—that is, bringing the lower fragment in a line with the upper one, which is tilted outwards. Keeping the fragments in this relation suggests the principle of treatment. In a case of this kind, recently, the patient had been treated only by the postural method,—lying in bed with his arm at right angles to his body. Surgeons are too apt to cover up such fractures with a cap and splints.

In the case of a colored woman, he had obtained good apposition by placing the hand upon the opposite shoulder, and in another case the forearm had to be placed behind the back. He had, for a number of years, discarded splints in treating fractures of the upper extremity of the humerus.

In these cases the displacement is due to the direction of the fracture, but there is no uniformity in the line of fracture or displacement. Each case is a rule for itself in the indications for treatment. His observation had led him to believe that fractures of the upper extremity of the humerus should be treated without splints by the postural treatment, using adhesive plaster to keep the arm across the body in the most favorable position; and possibly a pad may be needed in the axilla. By this means he was confident that better results can be obtained than by the usual practice.—*Medical Times.*

QUARTERLY MEETING OF THE RHODE ISLAND MEDICAL SOCIETY.

The regular quarterly meeting of the Rhode Island Medical Society was held in Providence, December 18, 1878, the president, Dr. E. T. Caswell, in the chair. The committee appointed at the last meeting to make collections for the benefit of the families of physicians at the South who died from yellow fever during the late epidemic, reported that they had collected and forwarded to the secretary of the Mississippi Medical Society the sum of one hundred and twenty dollars.

Medical Witnesses.—Dr. Turner, of Newport, made some remarks in regard to the compulsory attendance of physicians as witnesses in courts. He thought that some action should be taken to provide a law, if possible, by which courts should have discretion to allow a reasonable compensation, as done in some other States. In the present state of the law in Rhode Island it frequently works great hardship in compelling long attendance with no adequate pay.

Dr. Garvin, of Lonsdale, in the course of remarks upon the same subject, stated that on one occasion, being under summons to attend court at a certain hour, he found himself at that time in the midst of a case of labor, which of course he could not leave. On his arrival at court, half an hour late, he was informed that a writ had been issued for his arrest. But upon explanation of the circumstances he was allowed to escape further penalty upon payment of costs.

Upon motion of Dr. Turner, a committee consisting of Drs. Garvin, Kenyon and Dedick, was appointed to inquire what measures could be taken to procure legislation that would remedy this evil.

Metric System.—The report of the committee upon the adoption of the metric system was read by Dr. J. W. Mitchell, of Providence. Upon recommendation of this committee, a resolution was adopted that on and after January 1, 1880, the metric system should be used by the Fellows of this society in the writing of prescriptions.

Medical Examiners.—Dr. H. W. Williams, of Boston, was introduced, and gave an account of the recently established system of medical examiners in the State of Massachusetts.

He described the workings of the new law, and demonstrated fully its superiority over the old coroners' inquest.

Catarrh.—Dr. H. G. Miller, of Providence, made some remarks upon the treatment of naso-pharyngeal catarrh. He deprecated the use of saline and other liquid applications by means of the nasal douche, as liable to produce injury of the middle ear. He recommended that all remedial agents should be applied in the form of dry powder by insufflation.

Dysmenorrhœa.—Dr. Virgil O. Hardon, of Providence, read a paper upon Mechanical Dysmenorrhœa. He described the symptoms and pathology of this affection, and advocated the treatment by incision of the cervix uteri after the manner of Sims. He cited a number of cases from his own practice which had been successfully treated in this way. This paper was followed by an animated discussion. Most of the participants were of the opinion that in the majority of cases of mechanical dysmenorrhœa an operation is not necessary, but that relief may be obtained by dilatation of the cervix uteri or by the use of anodynes.

Diphtheria.—Dr. J. O. Whitney, of Pawtucket, read an elaborate essay upon diphtheria, in which he brought forward some novel ideas in regard to the ætiology and pathology of the disease. He maintained that there is but one pseudo-membranous disease, which has at different times borne a variety of names; such as diphtheria, croup, putrid sore throat, membranous laryngitis, cynanche maligna, etc. It is contagious or infectious in proportion to its visible putridity in individual cases, the contagious principle existing both in the breath of the sick and in the more solid discharges from the affected surfaces. It is primarily a local disease, the constitutional results depending upon absorption of the decomposed membrane. One attack gives no protection against a future attack.—*Boston Medical and Surgical Journal.*

PROCEEDINGS OF THE ESSEX NORTH DISTRICT MEDICAL SOCIETY.

The quarterly meeting of this society was held in Haverhill, October 23rd., Dr. W. H. Kimball, of Andover, President, in the chair.

Dr. G. M. Garland, of Boston, gave a demonstration of the system of pneumodynamics, so fully set forth in his book.

An interesting paper on the Embryology of the Lungs was read by Dr. C. D. Hunkin, of Haverhill; it was illustrated by microscopical specimens of Dr. Hunkin's own preparation. The following is an abstract:

The embryological study of the lungs is best made from microscopic sections of the embryos procured from the eggs of the hen, as these are by far the easiest to obtain. The impregnated hen's eggs are to be placed in an artificial breeder. At the fiftieth or sixtieth hour of their development, they are to be opened, and the embryos removed. The embryos are to be hardened in absolute alcohol, and the sections washed in distilled water. After staining in a dilute solution of carmine they are to be made translucent by means of glycerine.

Of the three layers of cells by which the lungs of the embryo are surrounded, that called the middle is the most important for our consideration, since with the exception of the epithelium of the pleuræ and the cylindrical epithelium of the bronchi, it builds the substratum for the collective tissues of the lungs and pleuræ. A section on the level of the heart of an embryo, prepared as above, under the microscope, discloses the first traces of the lungs as a pair of protuberances, lying symmetrically on both sides of and projecting from the primitive intestine, the so-called *Kopfdarm* of Remark. From an embryological stand-point, the lungs may be regarded as a thickened layer of the primitive vertebral cells,—as a double organ arranged uniformly on both sides of the intestine. . . . The epithelium of the lungs, since it plays not an inconsiderable role in the pathological conditions to which the lungs are liable, is worthy of consideration. In choosing the material for microscopic examination of the lung epithelium, the lungs of a dog, inasmuch as in them the alveoli are stronger and the epithelium is larger than in those of many other mammals, will be found most suitable.

The following are some of the points settled by investigation of recent date:

First. The normal lung alveolus has, during the extra-uterine life, a layer of epithelium which is continuous with the rest of the cells covering the bronchi and their branches.

Second. All epithelial forms are represented in the lungs.

Third. The cubic cells of the embryo alveolus may, without undergoing fatty degeneration, with the early acts of respiration, change to a form of polyhedral, flattened epithelium. The lungs have not a form of epithelium peculiar to themselves,—the amount of space in the alveoli at all times determining the form and size of the epithelium.

Fourth. The tissues of the lungs are liable to the same pathological conditions as similar tissues are in other parts of the body.

Selections.

IS THE HYPODERMIC INJECTION OF PILES DANGEROUS?—About two and one-half years ago I discovered, and published to the profession, the secret method of the itinerant "pile doctors."

The plan of these itinerants, which was sold as a secret, and at a high price, from one quack to another, is substantially as follows:

A hypodermic syringe, with a very fine, sharp point, is charged with a strong solution of carbolic acid. Generally three parts of crystalized acid to one of any bland oil are employed, but they sometimes combine them in equal parts, and, for the oil occasionally substitute glycerine.

The method of the operation is to insinuate the point of the syringe into one of the piles, and throw in a few drops only of the solution. This causes the hæmorrhoid to turn of a white color and gradually to wither away. Another one is then attacked, and thus by degrees a complete cure is affected, without causing enough irritation at any one time to take the patient away from business. The operation is sometimes painless, but in other cases decidedly otherwise.

Attention was called to the seeming danger, that by this method the carbolized oil might be thrown directly into the dilated hæmorrhoidal veins. The injection of coagulants into

venous enlargements of other parts of the body has, in a few cases, caused sudden death by embolism, a portion of the clots being carried to the heart and thence passing into, and blocking the pulmonary artery. It was suggested, therefore, that the injection of hæmorrhoidal veins might involve the same risk. The three groups of hæmorrhoidal veins intercommunicate, but the main outlet of the lower and middle groups is to the internal iliac and thence to the heart, while that of the upper is to the portal veins. It is conceivable that dislodged clots or globules of the injection might be swept by the current of blood to the heart, or possibly, might pass through the upper plexus into the portal vein, and be lodged in the liver.

I learn that a number of the itinerants have taken warning from my suggestions of danger, and employ a sort of clamp forceps to compress the base of the pile for a few moments at the time of the operation, thus hoping to prevent the passage of clots or globules along the veins.

This method has now been in use over three years, and has been applied to thousands of persons. If there be any actual danger in it such as is suggested by anatomy and by the danger of similar injections in other regions, the results would be manifest before now. Experience only can settle such matters. If on the other hand the method is safe, it ought at once to be adopted by the regular profession as the best method of dealing with this distressing disease.

To settle this question of danger I take the liberty, through the columns of this journal of asking every physician in the the United States, who has had opportunity to know the results of this treatment, to write me immediately, giving information on the following points.

First. How extensively has the plan been tried in your region?

Second. How far is the plan painless or otherwise?

Third. Have any sudden deaths or other alarming symptoms been known to follow its application, and if so how soon and what were the symptoms?

Fourth. Have any cases been followed by dangerous disease of the liver?

I propose to cull the information thus gathered, and com-

municate the results in a future article through the pages of this journal.

Please address,

EDMUND ANDREWS, M.D.,
 Prof. of Surgery in Chicago Medical College,
 No. 6 Sixteenth St., Chicago, Ill.

NOTE OF SOME POINTS IN REGARD TO THE ACTIONS AND USES OF PILOCARPIN AND ITS SALTS.—The alkaloid of Jaborandi, which is now known under the designation—Pilocarpin—is becoming plentiful enough to be employed in ordinary medical practice. Unfortunately the demand is not sufficient to justify its production on a large scale, hence the price continues very high. Having had an opportunity to use pilocarpin in a case to the treatment of which it is especially adapted, I concluded to test its action to compare the powers of the alkaloid with those of the crude drug. For this purpose I obtained some “Pilocarpin Muriatric, prepared by E. Merck, of Darmstadt, and imported by Mr. John Keeshan, of this city. As is well known, Merck has a very high reputation on the Continent for the purity of his preparations and chemicals.

The muriate of pilocarpin is a grayish white, crystalline, salt, freely soluble in water. I prepared a solution of two grains of the alkaloid to a half ounce of water—hence, ten minims represent one-twelfth of a grain, which I found to be a sufficient quantity for administration to an adult.

The physiological actions of jaborandi have been so exhaustively studied, that it seemed unnecessary to go further in testing the effects of its alkaloid, than merely to determine how nearly the two correspond. I have done so by some experiments *in propria persona*. I injected one-sixth of a grain of the muriate, hypodermically, and began to experience the characteristic effects in five minutes. A transient giddiness, flushing of the face, and frontal headache were the first symptoms experienced. A profuse salivary discharge followed—so profuse that a constant expectoration was necessary to keep the mouth free. Sweating came on soon after the salivation, appearing first on the forehead and thence over the body generally. It became so profuse in a short time as to saturate my undergarments. I next experienced a severe pain along

the urethra and some irritability of the bladder, the urine becoming pale and watery without being increased in amount.

In five minutes the pulse had risen to 90 and was rather small and weak.

Feeling very uncomfortable and depressed, I concluded to arrest the action of the pilocarpin, and accordingly injected hypodermically 1-10 grain of atropia sulphate, the physiological antagonist. Nothing could be more exact than the counterbalancing action of these two remedies. In two minutes the skin which was wet and cold had become dry and warm, and the free salivary flow was replaced by a dry mouth; the headache disappeared, and the irritability of the bladder ceased.

My experiment demonstrated the genuineness and the physiological activity of pilocarpin. Its ready solubility, slight taste, and small dose render it most eligible for administration by the stomach or by the integument. For these reasons, and for the more important reason that the preparations of jaborandi are much sophisticated, the alkaloid should take the place of the crude drug in medical practice.

The application of jaborandi in the treatment of disease is an admirable illustration of the way in which a knowledge of the physiological actions of a remedy indicates its remedical employment. There has been no history of its empirical use, except vague traditions derived from savages; but when the actions became known, at once the range of its uses was marked out from the physiological stand-point.

Acting so powerfully on the skin, jaborandi is indicated in all conditions of diseases in which sweating is beneficial. Various instances have already been reported of its successful use in albuminuria, in renal dropsy, scarlatinal dropsy, and in serous effusions. In cardiac dropsy, although very beneficial, it must be used with caution, as it has sometimes caused irregular and fluttering action of the heart, with faintness. When such an untoward result is threatened or occurs, the free use of alcoholic stimulants is proper, and their administration has been successful under these circumstances. In one case of cardiac dropsy in my own practice, in which there was considerable præcordial oppression, the 1-16 of a grain caused a decided increase in the cardiac distress without any action

on the salivary glands and skin. The result has been observed by others—notably by Dennue—who witnessed vomiting and depression, without the proper physiological action on the skin and salivary glands. Again, in other cases of cardiac dropsy, the results have been good and the heart unfavorably effected.

Recently I have had good results from pilocarpin in winter cough, (dry catarrh of the bronchi). In such a case great relief is always afforded by a remedy which increases the bronchial mucus and diminishes the viscosity of the exudation. When such cases are accompanied by a dry skin, by a scaly eruption, prurigo, or chronic urticaria—a combination quite usual in old subjects—the relief obtained by pilocarpin is really remarkable.

It will be found, no doubt, that jaborandi or its alkaloid will afford great relief in chronic cutaneous maladies characterized by diminished secretion of the sudoriporus glands. Influenced by the same considerations, it has already been employed in mumps, parotitis from ordinary causes, and in deficient mammary secretion.

Finally, I have observed that jaborandi has decided aphrodisiac qualities, and have used the fluid extract with success in functional impotence.

The readers of this journal have had placed before them very recently, the most important applications of pilocarpin in the treatment of eye diseases.

"Pilocarpin" says Dannue, "surpasses in promptness all other methods for obtaining abundant diaphoresis, and is less dangerous than hot baths. As the injection can be repeated several times daily without losing their effect, an enormous amount of transudation can be made to disappear rapidly in urgent cases."—*Cincinnati Lancet and Clinic*.

CASE OF EXTRA UTERINE PREGNANCY,—DEATH.

By RICHARD A. KENNEDY, M. D., C. M.

Mrs. A.—I first saw her in the beginning of February last, suffering from what I was led to believe, a threatened abortion. She considered herself to be pregnant with her second child. There was a bloody discharge per vaginum, great pain in the

pelvis, vomiting and high fever, with great tenderness of the abdomen, which I diagnosed to be a localized peritonitis. She was six days under my treatment, and then went to the Hotel Dieu, under Dr. Hingston. She came out of the Hotel Dieu after a short term.

On the 24th February, I again saw her, but do not remember the circumstances of my attendance, though she stated I gave her something which relieved her. I did not see her again until the 24th July, when she called at my office to pay something on her account. At that time she called my attention to her condition. The abdominal enlargement being that of a woman at about the 6th month of pregnancy; she complained of the foetal movements, and at her request I placed my hand on her abdomen and am positive that I distinctly felt them. Of course not expecting but what it was an ordinary case of pregnancy, and that as usual it was all right, I did not examine her as closely as I now wish I had done. Her calculation was that confinement would take place about the middle of October, for which she wished to engage me. Early in August she called and stated that she feared the child was dead; she had hurt herself getting out of bed and had felt no movement since. The abdomen I found was larger than at the previous time when my attention was called to it. There was no foetal movement, nor could I detect foetal pulsation; as there was no indication of uterine action, I counseled her to keep quiet and wait. At a subsequent examination I thought I could detect the placental souffle, which was faint, and I thought that probably some circulation was continued in the foetus, which might account for there being no attempt at labor. From the end of August she began to run down in health, got remarkably thin and debilitated, and had the appearance of a person suffering from the *absorption of septic matter*, chills and feverishness. I had considered the advisability of inducing labor; this she was averse to, and so were her friends, so that I placed her on iron and quinine, with a good diet.

About the beginning of September she complained of great pain in the right *inguinal region*. It was extremely tender to the touch, and there was an enlarged and distinct bulging; my opinion at the time was that the foetus was dead and had changed its position, the body getting into a transverse direc-

tion with the head in the right side; this was apparently confirmed by the altered shape of the uterine tumor. At this time I did not consider it advisable, even if allowed, to induce labor, and by making her lie on this side with a pillow under the swelling (which could be pushed downwards), it disappeared, leading me to believe that the body had again assumed its usual position. I wanted again to induce labor, but she preferred to wait, as she thought the child might be alive and labor would come on in due time.

She suffered severely from pain and diarrhoea with fetid dejections, and had a bad cough; morphine was given for the relief of pain, also a cough mixture, and the quinine continued. By the end of September she continued to improve, got stronger, but she was also getting smaller, and on percussion there was evidence of gas or air in the tumor where it was before quite dull as in pregnancy.

At her own request I did not interfere as she considered her time to be up in the middle of October. The opinion that I now formed was that the child being dead had decomposed with the formation of gases and absorption of putrefactive matter which had been going on for some time. During the second week of October she sent for me, believing herself to be in labor. She was suffering from pain just as in the commencement of labor. A vaginal examination showed that there was a rounded tumor pushing downwards, the os uteri in the usual position, but not at all dilated or dilatable, and the cervix entirely absorbed or obliterated. I then did not doubt but what the enlargement was in the uterus, and that the condition was such as I have stated. Finding in a few days that there was no advance in labor, no attempt at dilatation of the os, I began to suspect that I might be wrong in my opinion. I asked Dr. Finnie to see her. We tried to introduce the uterine sound, but could not, so it was decided that the os had better be dilated and an exploration made. I could not enter the sound more than half an inch, but on trying to put in a laminaria tent, this latter took a course to the right side and went in easily to full extent. This was in the evening; next morning I put in a sponge tent to further dilate it. This went in the same way, and when dilated examined with my finger (under chloroform), but only could insert it about an inch and a half; think-

ing I could feel the membranes, it was a question whether an opening should be made in them or not. This I hesitated to do, as, if there was escape of contents, no uterine contraction might take place, so it was considered best to give ergot to induce them, and on their action to puncture the sac. This failed, however; its only effect was to again close the os more firmly. I again dilated with tents, being determined to explore more thoroughly and to puncture at the same time. On examination this time got my finger into the whole cavity of the uterus, which was directed to the right and shortened, and now found that there was nothing in it, the tumor apparently lying upon it and closely applied, as percussion on the abdomen could be plainly felt. Of course no attempt was made at puncturing through the uterus.

This condition was verified by Dr. Firnie, and we considered as she was now better than in September, and the tumor was getting smaller, to leave it alone and continue the supporting treatment.

The opinion I have formed from these examinations, the past history, etc., is this: That the impregnated ovum had been arrested in its downward descent to the uterus, in the tube close to the uterus on the left side. There grown, its distension gave rise to the condition for which I was first called, probably rupture, that a new sac had grown around it, and in the entire growth had compressed the uterus and caused it to atrophy, and thus, as it occupied the median line, assumed the outline and position of the uterus. That there was a child I had no doubt, for I felt the foetal movements. From a growth in such a cavity slight causes would induce its death, and not being in the uterine cavity no effort at labor would follow. The subsequent septic condition, the evidence of gas in the tumor, are what would follow if the child was dead, and possibly ulceration may have occurred into the intestinal canal, which would account for the foetid condition of the discharge and the lessening size of the tumor which had been going on. I did not suspect it to be ovarian, until I made the examination in October, as it was not first observed at the side, but in the median line; besides, would it be possible for an ovarian disease to cause those changes to occur in the cervix which did occur, and caused it to be, as at present, entirely obliterated, and, at the

same time, cause a total suppression of the menses for so many months.

The following are the notes of the case after the admission of the patient to the General Hospital, under Dr. Ross:

She was admitted on November 8, 1878. Patient is thin, pale, emaciated, with sunken eyes. She complains of great pain across the lower part of the abdomen, and frequent vomiting. The abdomen is smooth, prominent, and somewhat tense. The lower zone projects considerably more than the rest, but no definite tumor as from a gravid uterus can be seen. By pulsation the upper margin of this swelling is felt to be just above the level of the umbilicus. The whole region occupied by it is quite tender upon pressure, and throughout gives a hollow tympanitic note upon percussion. On the right side low down (iliac region) there can be felt a distinct fulness and hardness, and it is here that the tenderness is most marked and the greatest pain is felt. She is feverish (101° F.), quick, small, pulse, very fretful and irritable. Says she is very restless at night, and perspires a great deal. She was put upon a mixture of iron and quinine, and was ordered beef tea diet with port wine, and given doses of morphia at night to relieve pain.

Two days after admission she had a violent rigor, followed by high fever and profuse sweating, for which she got a hypodermic injection of morphia. Had two stools the last twenty-four hours—they were grayish-colored and very foetid, but contained no trace of foetal debris.

On the 12th, pain, sweating, and weakness as before. No vomiting. No chills. This forenoon had two stools of similar characters to those last described, but containing in addition some small macerated foetid bones without cartilages; these were three ribs, and a long bone, probably a tibia; also a number of pieces of tough, shreddy, greyish tissue, which are no doubt portions of decayed integuments. The next day she voided a well-formed temporal bone. Complaints of sharp cutting pain when her bowels are being moved. A digital examination of the rectum was made; it appeared natural throughout; there was an impression conveyed to the finger, just at the top of its utmost reach, as though this point were the lower border of a rounded opening, but no aperture could be felt. Two days subsequently, the general symptoms in the

meantime remaining unaltered, the patient complained of very severe cutting pain in the rectum, so much so that it was feared a sharp portion of the foetal skeleton might be impacted there, A second rectal exploration, however, proved that it was empty.

Nov. 16th.—A severe chill last night and another this morning, followed by a temperature of 105° F., great anxiety and oppression, and then profuse perspiration. Quinine, iron, beef tea, and wine, are being freely administered, with local anodyne applications and hypodermics of morphia at night.

This condition of irregular fever, with occasional rigors, alternating with drenching sweats, continued until the 27th instant, when new symptoms were developed. A teasing cough had lasted for two or three days, accompanied by a small amount of frothy expectoration, but physical examination showed nothing abnormal. On this day, however, she was suddenly attacked, about two p.m., with a violent stitching pain in the right lower ribs, with a most distressing squeezing sensation round the chest. Auscultation revealed a loud, rough and harsh pleuritic friction at lower part of the right lateral region, extending less marked to the base of the lung behind. She was ordered morphia, the dose to be regulated at the discretion of the house-surgeon, and poultices. The next day the pain was relieved, but her pulse was very rapid, small, and compressible, and she gradually sank and died at two a.m. of the 30th instant.

Post Mortem, eight hours after death, (by Dr. Osler):—

Body that of a small, much emaciated woman; rigor mortis present; abdomen sunken; mammæ flattened and wasted; panniculus adiposus very scanty.

On opening abdomen, the parietal peritoneum is adherent from the naval downwards, and extending into the flanks. The attachments are separated without much difficulty, when a tumor is discovered, occupying the superior part of the pelvis, the organs of which are concealed by it. Above it extends nearly to the naval; the transverse colon is closely attached at the upper part and descends along the left side. On the right there are firmer adhesions with the lower coils of the ileum. The tumor is firmly fixed, occupies a central position, and is about the size of a child's head. On making a free incision

the sac of an extra-uterine pregnancy is exposed, containing about ten ounces of dark, grayish-black material, looking like a mixture of coal ashes and water, and in this are disconnected bones of a foetus, and discolored, and entirely devoid of soft parts. A peculiar and horribly foetid odor is given off from the contents. The sac walls are about two millimetres in thickness at the front and lateral parts; thicker and more condensed in the pelvis. The lining membrane is roughened, of a dark, gray color, and in places quite black. On separating the adhesions of the sac to the pubis, the bladder and fundus uterus are exposed, when it is seen that the former (the sac) lies above and behind the uterus, extending between it and the rectum as low as the level of the os, but not much more to one side than the other, the balance, if any, being in favor of the right. A little to the left of the upper extremity of the sac is an oval orifice of communication with the sigmoid flexure of the colon, three-fourths inches in length, edges rounded and dark in color. On the right side there are several spots where perforation has almost taken place into the ileum, the coils of which could not be separated without tearing the sac-wall. In the broad ligament of the right side is a cyst the size of an apple, in communication with the main one by a narrow valvular opening, and filled with a similar ash-like material. It has thick walls, with a well-formed lining membrane. The fallopian tube terminates at the upper part of this cyst, being slightly dilated in its course and at the extremity. The ovary of this side could not be found, but whether accidentally cut away or destroyed in the growth of the sac cannot be positively said—probably the former. The ovary of left side not seen—probably left in the body—though it was thought that the entire contents of the pelvis had been removed. The fallopian tube of this side is cut off about one and a half inches from the uterus. The tissues of the broad ligaments on either side are much infiltrated and thickened, and on the right below the lesser sac there are several lines of suppuration passing down towards the vagina, and several of the veins contain thrombi. The uterus is slightly enlarged, measuring five and a half inches in length, of which two and a half inches are made up by the cervix. Mucous membrane is soft, that of the cervix covered with a dirty semi-purulent secretion.

Heart presents nothing of note beyond five or six small perforations in the auricular septum.

Pleura over bases of both lungs inflamed and covered with flakes of lymph, about four ounces of exudation in the right side.

Lungs.—Posterior part of lower tube slightly collapsed and dark in color. One or two firmer spots are felt, which on section prove to be patches of pyæmic pneumonia, one of which is beginning to soften. In the lower tube of the left lung are several of these nodular, superficially placed spots; two have softened into small abscesses.

Nothing of note in the abdominal viscera.—*Canada Med-Record*.

THE PHYSIOLOGY OF SLEEP.

By E. P. HURD, M.D., NEWBURYPORT.

It is well to be cautious how we accept theories, for one stubborn fact, as Tyndall has said, will upset a whole freight train of theories. It once appeared to us settled that the proximate cause of sleep was anæmia of the cortical gray matter,—the centres of ideation, comparison, and volition. The theory worked very well. *A priori* it appeared quite probable that less blood should go to the brain during its quiescence than during wakeful activity.

Moreover, there were not wanting observations to suggest and confirm this view. During intense thought and passion did we not see the temporals swell and throb and the face become turgid, and during the insensibility of syncope, epilepsy, catalepsy, did not the external appearances favor the opinion that the brain was relatively anæmic? Must there not be relative anæmia during the insensibility of sleep also?

We had carefully read and noted Monroe's observations and conclusions as to the contracted condition of the arterioles and the pallor of the convolutions during sleep; these had been confirmed by Hammond and Brown-Sequard. Durham's investigations on the physiology of sleep had been published as early as 1860, and seemed to be exceptionally careful and

accurate. Pierquin a little earlier recorded an interesting series of observations on a girl in Montpellier who had lost a large portion of her scalp and skull. "Her brain could be seen for a considerable extent of surface. When she was in dreamless sleep her brain was motionless and low within the cranium; but when her sleep was imperfect and she was agitated with dreams, her brain moved and beat, more blood was sent to it, the arteries were relaxed, and the brain protruded through the opening in the skull. When she was awake the same difference was observed, in accordance with the activity or quiescence of her mind."

Donders "made a cruel but striking experiment. He cut away a part of the skull of an animal, and cemented in its place a piece of glass, and observed that in the waking state the brain is larger than it is during sleep, while in the latter condition it is pale and bloodless." Brown-Sequard, in his *Leçons sur les Nerfs vaso-moteurs*, had given his assent, based on similar observations, to the same view, and had said that sleep "resembled a light attack of epilepsy." If any further support to the *anæmia* theory was needed, it seemed to be given and all the demands of rigorous criticism satisfied when, in 1869, Hammond, of New York, published his little work on *Sleep and its Derangements*, wherein a number of independent researches pointed to the same conclusion.

It was very convenient to have a good theory of causation, for now it was plain how hypnotics must act, and what were the indications in insomnia. If chloral, bromides, anæsthetic and narcotic agents caused sleep, it would seem to be, for the most part, by contracting the cerebral blood-vessels, and thus diminishing the blood supply. The vaso-motor system had the principal part in this physiological change. To be sure, experimental researches had given contradictory results, but on the whole there seemed to be a considerable number of facts that went to show that hypnotics did so act.

Alas for human liability to err! We thought that all this was settled, but we were mistaken, and new experiments and new observations are imperatively needed, if, indeed, anything more concerning the intra-cranial circulation and other physiological changes during sleep and allied states of unconsciousness can ever be determined.

M. Vulpian's thorough and seemingly exhaustive researches on the physiology and pathology of the vaso-motor system have been fruitful in important results. Called in 1873 to the chair of experimental and comparative physiology, rendered vacant by the resignation of Brown-Sequard, he delivered a brilliant course of lectures on the vaso-motor system, which have been recently published in two volumes. Whatever merit may be attached to his former work, published in 1866, *Lecons sur la Physiologie generale et comparee du Systeme nerveux*—a work which has deservedly become classical—is, we think, eclipsed by this recent work of M. Vulpian.

After investigating the *role* of the sympathetic in various functional nervous diseases, where too important a part seems to have been assigned to the vaso-motors of the brain and spinal cord—*reflex paralysis*, the mechanism of whose production, he thinks, is altogether different from that taught by Brown-Sequard; *hysteria*, the motility of whose phenomena is the expression of real modifications of the elements of the cortical substance of the nerve centres, not appreciable to gross or even microscopic vision, and easily reparable; *tetanus*, *hydrophobia*, where, whatever the morbid erethism of the bulbo-spinal centres, there is no constant vascular lesion, and where, to account for the frightful manifestations, we must again resort to the vague term "molecular modifications," inappreciable, it is true, but real; *epilepsy*, where, again, Brown-Sequard's elaborate theories of vaso-motor action are found inadequate to explain the principal phenomena of the attack,—M. Vulpian devotes part of a long chapter (*Dix-Huitieme Lecon*) to the consideration of the physiology of sleep and the theory of cerebral anæmia. The question which he proposes for discussion is the following: "Whether the minute vessels of the encephalon undergo constant modifications in size and in contents in correspondence with the activity or want of activity of the brain; if the blood-vessels are relatively full when the hemispheres are working, and relatively empty when these centres are in a state of repose." There are two ways of reaching a solution of this question: one is by observations of the encephalon during natural sleep; the other by experiments made with hypnotic agents, and observing the

results, a portion of the skull of an animal having previously been removed. M. Vulpian has performed numerous experiments which go to show that the profession has been too hasty in adopting the conclusions of Durham, Hammond and others, pursuing a similar line of investigation. It is quite true that the observations of these experimental physiologists were correct; the error was in concluding that, because in certain instances the arterioles were found contracted and the brain pale and sunken during sleep, therefore the anæmic condition was the procuring cause of sleep. Vulpian admits that in ordinary sleep less blood circulates in the cerebral centres than when awake, but this relative anæmia is rather the concomitant, or result, than cause of the suspension of cerebral activity. "I am compelled to believe that during the first moments of sleep there is a degree, more or less marked, of encephalic congestion analogous to the congestion of the face and of the conjunctivæ which is observed at the same time. But in all probability, the respiration soon becoming calmer, more regular, a little less frequent, the movements of the heart becoming a little slower and less energetic, the cerebral circulation must undergo a like modification, and the congestion at the onset will give place to a slight degree of relative anæmia. Perhaps, also, the vaso-motor apparatus, by reason of the relative functional repose of the cerebrum, takes on a slight predominance of action, having for consequence a state of feeble augmentation of the *tonus* of the different vessels of the organism, those of the encephalon included."

Among the objections to the *anæmia theory* is this one, forcibly stated by Vulpian: that in individuals suffering from *anæmia*, of whatever cause (hæmorrhages, chlorosis, cachexia), there is ordinarily a marked tendency to insomnia. If the theory of Durham were well founded, one ought, in these conditions, to find a disposition to somnolence. On the other hand, in states of plethora the tendency to sleep is often very conspicuous. It is so in general after a full meal. To talk about the replete blood-vessels of the stomach and intestines, after a repast, driving blood from the encephalon, seems nonsense when we remark the turgid countenance, the injected eyes, the throbbing temporals, of the sleeping gourmand.

Another objection to the theory is the fact that the results

of ligation of the encephalic blood-vessels do not favor it. Vulpian, after numerous trials in this direction, declares that "it is impossible, in practicing graduated compression of the encephalic vessels, to produce sleep at any moment whatever of the experiment." Moreover in animals, faradization of the cephalic ends of the two cervical sympathetic nerves has repeatedly been practiced. "The result was some amount of cerebral anæmia [*un certain degre, assez faible relativement*] without the least manifestation of somnolence."

It would seem that if there were any causal connection between excitation of the vaso-constrictor nerves of the encephalon and sleep, electrization of the sympathetic in the neck should cause somnolence; nothing like somnolence occurred in Vulpian's experiments.

How about the action of anæsthetics and hypnotics? Hammond's experiments with ether determined a decided pallor of the surface of the brain in animals on which he operated. Vulpian's experiments, many of which were made before his class, were not attended with any marked or constant modification of the blood-vessels in the brain, whether the inspection were made with the naked eye or with a lens.

Other experiments, made with chloroform, equally failed to show any marked effect on the blood-vessels; "the cerebral anæmia, inconspicuous under etherization, is still less marked during the insensibility of chloroform." As for *opium*, its effects on the little vessels of the pia mater appeared to be *nil*. The opium in solution was injected under the skin; in half an hour the animal was in a state of profound somnolence; "the vascularity of the cerebrum was not changed in any appreciable manner."

Other experiments were made with hydrate of chloral. Deep, sleep resulted; the encephalon, denuded of a portion of its cranial covering, was inspected; no modification in the condition of the vessels of the pia mater were discernible.

Vulpian's conclusions from his carefully conducted experiments is that sleep natural and artificial, is a phenomenon essentially independent of the vaso-motor system and the state of the blood-vessels. The anatomical elements of the gray substance of certain parts of the encephalon have a *habit*, at certain times, and under certain conditions, of *lapsing into a*

state of *functional inactivity*. It is an "*engourdissement*,"—a torpor. The vascular, cardiac, and other manifestations are only accessory; they may be concomitant or consecutive, but they do not play any essential *role* in the physiology of sleep.

It seems to me probable that this may be for some time to come the last word on the subject, and that neither *this* condition of the blood-vessels nor *that* condition is the physiological antecedent of sleep; that, in fact, we must seek for the cause of this periodical phenomenon, so essential to our well-being, so suggestive, moreover, of the essential *oneness* of the physical and psychological—body and mind—in that invisible world of molecules whose polarities, permutations, and combinations produce results that baffle intellect and imagination to comprehend, and make nature herself transcendental.

It is evident that for a long time to come hypnotic agents must be given from empirical considerations solely, and not from any supposed knowledge of their *modus operandi*. Of course, it will be quite proper to indulge in any amount of reasonable speculation as to how the cerebral cells are affected by drugs, and it must be admitted that considering the unfathomable mysteries of the molecular world, of which we get some hints, we must not be surprised at any future revelation concerning them, just as Lord Beaconsfield says that we need not be surprised at anything which takes place under a republican form of government!

It is doubtless true that while chloral and soporifics generally do not act by shutting off in part the arterial blood current, yet since a certain amount of relative anæmia is generally an accompaniment of natural sleep,—a full supply of oxygenated blood being essential to active cerebration,—and since the *minimum* of cerebration (with arrest of those destructive changes which are the correlatives of states of consciousness) is hardly compatible with the *maximum* of arterial blood supply, measures tending to diminish the amount of blood circulating in the brain, such as cold to the head, and derivatives, are indicated in insomnia. These will often fail where, were the anæmia theory true, they should succeed. The causes of insomnia are very generally subjective, and no remedy is effective which does not include a radical change in the habits, modes of thought and feeling, and surroundings of the patient.

Editorial.

YELLOW FEVER BOARD OF EXPERTS.

Since our last issue, in which we noticed the yellow fever commission's report, the yellow fever Congressional committees of the Senate and House have appointed a board of experts to investigate the cause and spread of cholera and yellow fever. The board organized at Memphis and adopted a plan of investigation similar to that pursued by the commission last October. Dr. Woodworth, Surgeon General of Marine Hospital service, the creator of the commission, is chairman of the board of experts. Two members of the commission, Drs. Bemis and Cochran, are on the board. We do not *know* the views of the other six members, or that they have any settled and expressed opinion as to the origin and spread of yellow fever. We would fain hope they have, at least, no prejudices on the subject which will control them in their action. With Dr. Woodworth at the head, however, and two of the commission as leading members of the Board, we fear that not only the same plan of work will be adopted, but that a similar report will be made.

We must be allowed to enter our plea for unprejudiced, disinterested enquiry into *all* the facts, which will go to prove the true origin of yellow fever in this country.

Let us suggest that facts should be given going to show that the fever has local cause, and that it will not "*spread*," (as the commission, president and all are pleased to term it) without the local cause which produces it. These should certainly be considered as well as those which *seem to favor* importation. Would it not be well to state the facts that excessive rains during summer in the Mississippi valley caused overflow of streams, and that the water in marshes, pools, ponds, lakes and bayous gradually subsided under the most intense heat of summer known to that country? The condition in this respect of Winona, Grenada and all other infected places, would probably show local cause for the fever that prevailed. Memphis particularly requires investigation of this kind. If money

is to be spent for the protection of the people against the ravages of yellow fever, this is a rich field for the exercise of government philanthropy. Can the bayou or lake contiguous to this devoted city be drained so that it will not retain the washings of the fertile Mississippi valley which have been suffered to ebb gradually under a burning summer's sun heretofore?

Another important fact will strike every one with force, who has not quarantined on the brain: The refugees from Charleston, Augusta, Savannah, Brunswick, New Orleans and Memphis, have been known to take the fever, after leaving home, at various non-malarious, healthy parts of the country, without communicating the disease to others in a single well authenticated instance. In 1834, 1858, 1876 and 1878 persons fleeing their infected homes had the disease in Atlanta, bringing with them packages and trunks of clothing, etc. With these so-called causes of the disease many of our citizens have been brought into constant contact, but in no instance has a case occurred from fomites in clothing or personal communication. Not only has the disease failed to "spread" by transportation, but imported cases of the fever from abroad never communicate the disease, as proven by the known fact that the disease never "spreads" in neighborhoods free from local malarial cause. The Board of experts, and Congressional Committees can be supplied on application with an overwhelming amount of incontestable proof on these points.

If the United States' government seeks to obtain all the facts necessary to determine the true origin of yellow fever, in order to aid in protecting her people against it, why are not some such men put on the Board of experts, as Kinloch, of Charleston, LeHardy, of Savannah, or some of the physicians of New Orleans who have evidences of local origin? At any rate, why are not the facts they publish, going to prove local origin, mentioned in the commission's report?

Now, in conclusion, we have this to say: If, under the leadership of the determined and managing apostle of quarantine, the work of protection is to be carried on by sea, the *form* of investigation now going on, and the expense incurred thereby, might well be dispensed with.

OPIUM HABIT.

Few, except apothecaries, know the extent of the destructive habit of opium eating. Remarkable reports of Asiatic proclivities for the use of this and other poisonous drugs are current in this country, while of the thousands who are wrecked, morally, physically and intellectually by opium, none are generally known, except such as consent to be used as advertisements for nostrum dealers and charlatans.

There seems to be a general impression with the public, which is also indulged by some physicians, that there has been discovered an "antidote," a remedy which can be substituted for opium, used for a short time and then with impunity discontinued. Those who advertise their "opium antidote" are supposed to be in possession of this secret remedy and very extravagant prices are paid for it by the sufferers from the habit.

We took occasion, about a year since, to express our opinion on this subject. We then believed the advertised and dearly sold nostrum to be a humbug—that the cure, when made, is effected by the system of gradual reduction. That it can be done in this way, and in shorter space of time than the nostrum dealers sometimes require, any physician who has tested it will testify. We are induced to take up this subject again in answer to the following note just received:

" ——— GEORGIA, Jan. 8, 1879.

DR. J. G. WESTMORELAND:

My Dear Sir—Please publish in the next issue of your MEDICAL JOURNAL, the treatment for the opium habit, or give the antidote for the same. Give the full treatment for the cure of those who have been using opium for a number of years.

Yours.

———, M.D."

We do not know how many physicians, like our correspondent, are looking for a substitute by which the opium habit may be cured, but we have reason to believe there are still many who indulge the opinion that some secret drug is being used to satisfy the desire of opium eaters. To such we must express our doubt, at least, of any such discovery having yet been made. It is true that certain other cerebral stimulants, such as alcohol, chloroform, etc., may afford partial relief temporarily, but great suffering and prostration must be the result of sudden

and total suspension of the habit, whatever else may be taken.

From analysis of the nostrum "opium antidotes" in use, it seems that strychnine is one of the ingredients. Morphia is of course always found in them, and to the gradual reduction of this, in each successive bottle sent the patient, the cure must be attributed. It is certainly against the pecuniary interest of the nostrum dealer, as well as the feelings of his patient, to reduce the quantity of morphine very rapidly; hence, not very excessive suffering is experienced, but quite a number of bottles, at a high price, are required, and a long while before the cure is effected.

The trouble we find is that our patients often fail to continue honest, fair treatment, when they find in every newspaper certificates and promises of cure by a "painless antidote."

It is not by any means certain that any real benefit is derived from strychnine or any other remedy that has been given with the morphine in order to lessen the necessary quantity. A very ingenious mode of honest cure by gradual reduction has been practiced successfully, as follows: Let a quart solution of morphine in water be made, so that a tablespoonful contains the amount of morphine the patient usually takes at a dose, and let a tablespoonful of the solution be taken at the usual time the habit requires, but after every dose have a tablespoonful of pure water poured into the bottle containing the solution. If the subject is in the habit of taking four grains of morphine twice a day, half an ounce of morphine will make the quart solution of proper strength, and of course less or greater amount may be dissolved, according to the quantity habitually taken. In this way the almost imperceptible reduction effects a cure without excessive suffering.

Another plan is, in addition to moderate reduction of the quantity, to increase the interval between the doses. An hour, or even half an hour's increase of the accustomed interval will very decidedly hasten the cure, but will necessarily give a little more suffering.

Some suffering may be expected by any plan when the cure is effected in a reasonably short time, and the more suffering patients make up their mind to endure, the more speedily they will be free from the habit. Upon faithful observance of the directions all depends, and without unflinching determination

on this point the treatment need not be undertaken with the hope of cure.

The cure may be effected in one to three months, according to the quantity taken and the length of time the habit has been indulged.

BIBLIOGRAPHICAL.

DIFFERENTIAL DIAGNOSIS: A Manual of the Comparative Semeiology of the more important diseases. By F. DE HAVILLAND HALL, M.D., Assistant Physician to the Westminster Hospital, London. American edition with extensive additions. Philadelphia: D. G. Brinton, 115 S. Seventh street; 1879.

Without any pretention to an exhaustive treatise on the subject selected, the author of the above work has given the profession an interesting and profitable little book of two hundred pages. The comparative symptoms between some of the most prominent diseases which resemble each other in some particulars, are given in a very satisfactory manner. For example, the symptoms of measles and small-pox are given in separate columns on the same page so that the comparison can be readily made between the evidences of the respective diseases.

The work will certainly afford valuable aid to young practitioners in forming diagnosis, and will be read with interest and profit by the more advanced members of the profession.

A Monograph, entitled "Gastro-elytrotomy," by Henry J. Garrigues, M.D., fellow of the American Gynecological and New York Obstetrical Society, has been received.

This operation, from having the cut made in the iliac region, is made to avoid the dangers of injury of the peritonæum and body of the uterus, which is unavoidable in the cæsarian section.

The operation is certainly more difficult to perform, but may be found more successful when properly made.

CONSPECTUS OF ORGANIC MATERIA MEDICA AND PHARMACAL BOTANY. Comprising the Vegetable and Animal Drugs: their Physical Character, Geographical Origin, Classification, Constituents, Doses, Adulterations, etc. Table of the Tests and Solubilities of the Alkaloids appended. By L. E. Sayre, Ph. G. Philadelphia: D. G. Brinton, 115 S. Seventh street: 1879.

To the medical botanist this work must prove eminently

acceptable. Not intended as a text-book on general materia medica, the author's object seems to be more especially to give the botanical origin of vegetable drugs. Hence, the work is commenced with a chart, giving the name of the natural order, the officinal name, the botanical name, the common name, the habitat, the part used, the constituents, the medical properties, dose and officinal preparations. Then, after thirty pages on general botany, each article of drugs is considered separately, in regard to nativity, characteristics, constituents, adulterations, etc., and it closes with a chart of solubilities and tests.

Taken all together the work will be found interesting and instructive to the medical reader.

NOTES ON THE TREATMENT OF SKIN DISEASES. By Robt. Liveing, A.M. and M.D. Cantab F.R.C.P. London, lately Physician and Lecturer to Middlesex Hospital, etc. Fourth edition revised and enlarged. New York: Wm. Wood & Co., Publishers, 27 Great Jones street; 1878.

This little work of 123 pages will be read with interest by many who find great perplexity in the diagnosis and treatment of the various forms of skin diseases. While we have an abiding dislike for formulæ, and while this dogmatical association of remedies decorates the last twenty-three pages of this little book, we nevertheless like the body of the work, which treats of the symptoms, nature and treatment of a troublesome class of diseases.

EXCERPTA.

PLACENTA PRÆVIA.—Dr. Sutton supposes a case, which may happen to any general practitioner, and which has happened to himself. The physician is called to attend an obstetrical case several miles in the country. He has no reason to anticipate, but on arriving at his patient's bedside, finds her as follows: "The woman has been flooding; she is pale; the pulse is small and feeble; the bed is saturated with blood; and, on inquiry, it is probably found that this patient has had occasional attacks

of flooding for several weeks; but as the woman was strong and vigorous, and her hemorrhages lasted only a few minutes, no danger was apprehended. On making an examination, the vagina is found filled with clotted blood; the os is probably dilated to about the size of a quarter or half of a dollar, and, immediately above it, is felt the spongy mass of the placenta revealing beyond all doubt the alarming fact that he has a case of placenta previa. From the loss of blood that has already taken place, and the danger which is so evident, consultation is desired—for it is his wish that another physician should bear a portion of the responsibility in the treatment of a case attended with so much danger and anxiety. But this patient is five or ten miles in the country; the roads are bad, and hours would elapse before a physician could arrive, or Barnes' or Molesworth's dilators be procured." Shall we try the tampon until the uterus is sufficiently dilated to enable us to turn and deliver? Dr. Sutton says his "experience is not favorable to the tampon." Complete detachment of the placenta, as recommended by Simpson, insures the death of the child, though the condition of the mother may be so urgent in some cases as to make this desirable means of saving her life. But suppose we have decided not to resort to this plan. When we come to the method which Dr. Sutton urges, he says: "We have, then, a modification of the old plan of forcible dilation of the os—using the hand, and, at the same time, a roll of cloths, pressed against the bleeding utero-placental vessels as an internal tampon, while we separate a portion of the placenta, and, at the same time, produce as rapidly as practicable mechanical expansion of the cervix to favor the expulsion of the child, or enable us to effect podalic version and delivery as soon as possible. By this means we have the tampon and forcible dilation, while with the vagina tampon alone we attempt to arrest the hemorrhage, depending upon nature to produce the dilation." He thinks that with "cautious and judicious management we may accomplish with the hand almost all that we can with the rubber dilators. It can be made conical in form, and can be used as a dilating wedge, imitating to some extent the mechanical expansion of the cervix by the 'bag of waters.' Its motions are always under intelligent direction; we know exactly what we are doing."

If the os should continue rigid and does not dilate, Dr. Sut-

ton thinks there would be strong reason for resorting to free incisions of the cervix.

In support of the views presented, a number of cases are related, in which the lives of mother and child were saved by methods essentially of this kind: dilation of the os with the fingers; partial separation of the placenta; the introduction of the conical muslin tampon; the introduction of the hand and rupturing the membranes and turning.—*Obstetric Gazette*.

PRIZE OF ONE HUNDRED POUNDS FOR AN ESSAY ON HYDROPHOBIA: ITS NATURE, PREVENTION AND TREATMENT, OFFERED BY V. F. BENETT STANFORD, ESQ., M.P., TO BE AWARDED BY THIS ROYAL COLLEGE OF PHYSICIANS OF LONDON.—Conditions under which the above prize is to be competed for:

1. The essay must be in English, or accompanied by an English translation.
2. The essay must be delivered to the College on or before January 1, 1880.
3. Each essay to be accompanied by a sealed envelope containing the name and address of the author and bearing a motto on the outside, the same motto to be inscribed on the essay.
4. The essay may be the joint production of two or more authors.
5. The essay, if not published by the author within a year, to become the property of the College.
6. The prize not to be awarded unless an essay of sufficient merit be presented.

The questions which are thought by the College specially to require investigation are:

1. The origin and history of outbreaks of rabies, particularly in the United Kingdom and its dependencies.
2. The best mode of prevention of rabies.
3. The characteristics of rabies during life, and the anatomical and chemical changes which are associated with the disease in its successive stages, particularly in its commencement.
4. The origin of hydrophobia in man.
5. The chemical and anatomical morbid changes observed in the subjects of the disease, with special reference to those

having their seat in the organ of the nervous system and in the salivary glands.

6. The symptoms of the disease, particularly of its early stage, as illustrated in well observed cases.

7. The diagnosis of the disease in doubtful cases, from conditions more or less resembling it.

8. The alleged prolonged latency of the malady.

9. The efficacy of the various remedies and modes of preventing the disease which have been proposed, and what plan of treatment, whether prophylactic or curative, it would be most desirable to recommend for future trial.—*The New Orleans Medical and Surgical Journal.*

DR. WALKER'S MODIFICATION OF SAYRE'S APPARATUS.—Judging from the discussion by the Medical Society, the surgeons of this country are willing to adopt the treatment of Dr. Sayre for disease of the spine in its entirety. Many, however, who have become acquainted with Dr. Walker's mode of applying the plaster jacket will think, with me, that it has some merits over that of Dr. Sayre, and I wish briefly to record in the Journal my own experience of this modification, and my reasons for adopting it.

At the Children's Hospital, and other institutions, I have had a very great number of cases of diseased spine under my care; and, until August last, when, as Secretary to the Surgical Section, at the meeting of the British Medical Association, I had full opportunities of learning Dr. Walker's views, I had always applied the plaster bandage with strict attention to all the rules laid down by Dr. Sayre. After conquering those small technical difficulties which beset the adoption of any new plan of treatment, I found that, apart from the terror, often the pain, and sometimes the danger of Dr. Sayre's method, it was impossible to avoid, in some cases, the occurrence of sores over the prominent spinous processes of more severe cases.

Since August I have applied, at Great Ormond Street and elsewhere, more than twenty bandages after the method advocated by Dr. Walker, and I confess myself most satisfied with the result in every way. In all slighter cases the effect has been as satisfactory as Dr. Sayre himself could wish to see; whilst, of the more severe cases, in no instance have I had to

remove the jacket. In application it is simple, and it is free from any terrors, pains, or dangers, which undoubtedly are caused by suspension of the patient. On the other hand, it is most efficacious in result, and based on the soundest principles, pathological and surgical.

The various elements of the spine are held together by ligaments, whose function is to fix each vertebra in a definite relation to the vertebra above and below, the relations varying in different parts of the spine, but the whole being subservient to maintaining the superincumbent weight in the erect position. If by the collapse of the body of one or more vertebræ the weight be thrown forward, a strain is put upon the muscles and ligaments so long as that weight has to be supported; but, whenever the weight is removed, the vertebræ return to their normal relationships. The method which Dr. Sayre adopts of removing the weight is by suspending the patient; that recommended by Dr. Walker is by laying the patient in the recumbent position. English surgeons appear to be so carried away by the novelty of rurspending patients by the head and axillæ, that they are unwilling to believe that the same result can be obtained by laying them on their back. Whilst the one is an unnatural means of effecting the object, not devoid of risk or free from pain, the other is an easy method, and that which is apparently dictated by nature. It must not be forgotten that, before Dr. Sayre came amongst us, many a case of angular curvature was brought to a successful issue by rest long continued in the recumbent position. To Dr. Sayre is undoubtedly due all credit for discovering that the spine could be fixed in a condition of rest and treated in the way that experience proves to be most useful in the case of disease in other joints. But by the plan of Dr. Walker the vertebræ are fixed in that condition which they assume when the patient is laid upon the back, the position of most natural rest. In principle this seems to me to be scientific; in practice it is simple; and in result it is efficacious.

I shall be happy to show the mode which I have adopted, after Dr. Walker, of treating these cases at the Children's Hospital, and I hope that it may commend itself to others as producing an equally beneficial result, whilst avoiding the many objections which are found to suspension.—*John H. Morgan in British Medical Journal.*

WHY THE PHILADELPHIA COUNTY MEDICAL SOCIETY IS A SECRET SOCIETY.—The Philadelphia County Medical Society, however efficient in many directions, is in one respect a standing discredit to the profession of medicine. It sits with closed doors, refuses admittance to reporters, and even forbids its own members from giving so much as an epitome of the scientific papers read before it to the general professional public. We venture to say that not only no other medical society, but no other professedly scientific association in the world, is equally narrow and short-sighted. And what is the "true inwardness" of this unheard-of action? We know it, and shall divulge it for the benefit of those medical journals at a distance who have expressed surprise at such a state of things (as well they might). There is a medical journal, not often heard of, in this city which, having failed in every other way to attain even a local circulation, its publishers thought might have some life galvanized into it as an "organ." Its editor, with a few active friends, one or two of them, we are sorry to add, officers of the society, rushed through a resolution one summer afternoon, that the "organ" should be the exclusive one, and the measure is carried out as has been noted. The poor-befooled members do not get a cent for their articles, the publisher having stipulated that he was to own them, but not to pay for them! Their papers attain a circulation of only a few hundred copies, around town principally; and as the journal in question is not of very frequent issue, and would be pretty sure to be behind time anyhow, of course, the embargo must be stringently enforced on more wide-awake periodicals. This is the explanation of the matter, and what a story it is to tell of the principal medical society of this city!—*Med. and Surg. Reporter.*

INNERVATION OF THE UTERUS AND OF ITS VESSELS.—A communication is made on the *Wiena Med. Jahrbucher* by v. Basch and Hoffman, giving the results of numerous experiments they have performed on dogs. They find that the uterus receives its motor fibres from two sources. On the one hand, from the hypogastric nerves proceeding from the posterior mesenteric ganglion; and, secondly, from nerve-fibres issuing from the sacral plexus. It is well known that Spiegelberg denied any

motor power to the hypogastric branches, and Frankinhauser, considered that the sacral branches were destitute of motor power. Now, according to the remarks of Basch and Hoffmann, a very distinct antagonism exists between these two sets of nerves. If the hypogastric be electrically stimulated, contraction of the circular fibres of the uterus takes place, the cervix descends in the vagina, whilst the os opens. On the other hand on stimulation of the sacral nerves the longitude fibres are made to contract, the uterus becomes shorter, and the os remains closed. Suppression of respiration, or stimulation of the sciatic nerve, acts in a reflex manner, chiefly on the hypogastric nerves. Their experiments further showed that the vessels of the uterus obtain their nerves from the same sources as the muscular tissue, the *nervi hypogastrici* supplying the constructing and the sacral nerves the dilating fibres, which can likewise be brought into action reflectorially through the sciatics.—*Lancet*, Nov. 16, 1878.

EFFECTS OF RHUBARB AND SANTONIN ON THE URINE.—Dr. J Munk (*Virchow's Archiv*) found that after the internal administration of both rhubarb and santonin the urine was of a greenish color, and that in both cases the addition of alkalies changes this to red. Notwithstanding this resemblance there are points of difference:

First. Alkaline carbonates produce the redish color almost instantly after rhubarb has been taken, while after santonin the change is exceedingly slow.

Second. This change of color of the rhubarb urine by alkalies is permanent; that after santonin passes away in twenty-four to forty-eight hours (if caustic soda be employed it may last longer).

Third. The rhubarb urine, colored red by alkalies, is discolored by digestion with steel filings; that after santonin is not.

Fourth. By adding to the rhubarb urine an excess of baryta or lime water, and filtering, the deposit retains the reddish color, and the filtrate remains clear; on the contrary, in santonin urine the pigment remains in solution, leaving us a red-dish filtrate and an uncolored sediment.—*Druggist's Circular and Chemical Gazette*.

EFFECT OF BICARBONATE OF POTASH ON THE ACIDITY OF URINE.—Dr. C. H. Ralfe, teacher of Physiological Chemistry in the Medical School, St. George's Hospital, has made some observations (*Lancet*, Nov. 9, 1878) to test the effect of bicarbonate of potash on the reaction of the urine when taken before and when taken after meals.

He found that the effect of bircarbonate of potash, taken after food, on the acidity of the urine, is different from that when it is administered before meals.

For when taken on an empty stomach the acidity on the day of administration was only slightly depressed, whilst on the day following the acidity was considerable higher than it was the day before the salt was taken. But when it was administered during the process of digestion the acidity of the urine entirely disappeared, being on two occasions neutral, and on one alkaline, whilst on the succeeding days there was no marked increase in the acidity of the urine as compared with that of the days preceding the experiment. And the same difference is observable in the hourly variations of the urine, for when the bicarbonate was taken before meals the effect of the alkali passed off at the end of two hours, and the amount of acid passed in the succeeding three hours was nearly equal to what was passed on the day no medicine was taken; whilst when the salt was taken after meals the urine remained alkaline up to the end of four hours after the dose was taken, and no recovery of acidity was noticeable.

The result of these observation tends to establish the fact that the administration of an alkaline bicarbonate on an empty stomach increases the acidity of the system, whilst its administration after a meal diminishes it.

Dr. Ralfe finds the explanation of this in that the acid reaction of the urine is generally considered due to the decomposition that occurs between an acid or an acid salt and the neutral phosphate of sodium in the blood, acid sodium phosphate being formed, which passes out with the urine. Now, one of the chief acid salts in the blood is undoubtedly bicarbonate of potash or soda, an acid salt with an alkaline reaction. It is, therefore, not surprising to find the administration of an acid salt, if it passes unaltered from the stomach into the blood, causing an increase in the acidity of the urine. And this is,

indeed, what happens when a dose of bicarbonate of potash and soda is taken into the stomach before meals, for then the mucous membrane under normal conditions being either neutral or alkaline, the bicarbonate is absorbed undecomposed into the blood, and causes the increase in acidity of the urine which has been noted. On the other hand, when the salt is taken during the digestion, the acid contents of the stomach decompose it, carbonic acid is liberated, which escapes by the mouth, whilst the alkaline bases pass into the system and cause the urine to assume an alkaline reaction.

The therapeutic indications to be drawn from these observations may be thus summarized:—

1. In cases of acid dyspepsia arising from the excessive formation of acid within the system, as in lithæmia, the alkaline bicarbonates should not be administered before food, but after.

2. The administration of alkaline bicarbonates before meals is indicated in those cases where the free acid is formed in the stomach itself, the result of fermentative changes of undigested food or morbid mucus, when it is necessary to diminish the too high degree of acidity thus caused in order to permit digestion to be properly performed.—*American Journal of Medical Sciences.*

THE FORM AND CONTAGIOUSNESS OF YELLOW FEVER.—Mr. Robert Lawson, Inspector General of Hospitals, after a detailed consideration of the relation of this disease to other fevers, and especially of a number of cases which occurred on board H. M. S. Bristol, sums up his conclusions as follows:

First. Yellow fever is not a disease always presenting the continued form, but is met with frequently as a remittent, and even as an opening intermittent.

Second. The sporadic cases presenting yellowness of surface and black vomit are also found to have the train of urinary symptoms characterizing yellow fever, and are consequently identical with those met with during an epidemic.

Third. In very many instances where persons in the vicinity of yellow fever cases are attacked with the disease, the facts do not admit of the exclusion of local causes, and such instances, therefore, cannot enable us to decide whether these causes

or personal contagion have originated the disease; but from time to time other instances occur in which the exclusion of local causes can be assured, and in these, however extensive the exposure of susceptible individuals to the emanations from the sick may have been, the uniform result is that no communication of disease has taken place—*Lancet*.

ULCERATION OF FRENUM LINGUÆ IN PERTUSSIS.—Dr. W. N. Moccall calls attention to this ulceration as a valuable aid to the diagnosis of pertussis. It is not a constant lesion, but exists in about one-half of the cases. Its cause seems to be mechanical; in the cough the frænum is stretched and the tongue is rubbed in a sawing manner on the lower incisors. In any other situation than the front of the frænum it seems to be due to irregular teeth. Bouchut's dictum is "that a child which coughs, and this ulceration on or near the frænum linguæ certainly has whooping-cough."

Dr. C. Elliott has found this ulcer present in only twenty-five per cent. of his cases. He thinks its origin is both follicular and mechanical, but it has been found in children which had not yet cut their teeth.—*Maryland Medical Journal*.

NEW METHOD OF COVERING THE TASTE OF COD-LIVER OIL.—Dr. Ponteres mixes a tablespoonful of cod-liver oil with the yolk of an egg, and when they are thoroughly combined adds to them a few drops of spirits of mint and a half a glass of sugar-water. In this way he obtains a sort of mulled egg, which differs very little from ordinary mulled egg, and which presents neither the taste nor the odor characteristic of cod-liver oil. It can consequently be taken without repugnance by the most fastidious patients.—*Union Med.*

DOES QUININE AFFECT THE HEARING?—The belief is general among the laity that the prolonged use of quinine affects the hearing. Medical men have generally disbelieved this, and attributed the notion to prejudice. Dr. Roosa, of New York, has been examining the evidence, such as he can procure, and is inclined to believe that in some cases there is a permanent nervous affection of the ear produced, which justifies the opinion of the laity.—*Med. and Surg. Rep.*

TURPENTINE VAPOR IN ACCIDENTS FROM CHLOROFORM VAPOR.—Dr. Wachsmuth, of Berlin, has suggested a preventive of those accidents which frequently occur in the administration of chloroform to produce anæsthesia. He says: It consists in the addition of one part of rectified oil of turpentine to five parts of chloroform. The oil of turpentine in vapor appears to exert a stimulating or life-giving effect on the lungs, and protects these organs from passing into that paralyzed state which seems to be produced by chloroform narcosis. Dr. Wachsmuth, while lying on a sick-bed, accidentally breathed the vapor of turpentine, and he experienced from this a strongly refreshing feeling. This fact induced him to try the plan of adding oil of turpentine to chloroform when the latter was used for anæsthetic purposes. The beneficial results surpassed his expectation.—*Boston Journal of Chemistry*, October, 1878.

CHLORAL AS A COUNTER-IRRITANT.—Among the many uses to which chloral has been put, we have not met before with the following from the *Bulletin Therapeutique*:

“Made into a mass with gum tragacanth, spread on paper and applied to the skin, it will produce a blister without pain. Applied as a powder, on cotton, it causes a painful burning sensation. By the former method, a portion is absorbed and the patient falls asleep. Its action is not so uniform as cantharides, but is a mild vesicant, or an agreeable revulsive, the author quoted would commend such ‘chloral paper’ to physicians, the more so as it will keep for months without losing its activity, if well prepared.”

HYDROPHOBIA CURED BY OXYGEN.—This case is reported by Drs. Schmidt and Zebeden from Russia. The first symptoms of rabies appeared seventeen days after the injury. The patient was made to inhale three cubic feet of oxygen, and two hours afterwards he was in a state of perfect calm. Two days afterwards the symptoms of rabies reappeared, and another inhalation of oxygen was administered with the same success. This time the inhalation was continued for forty-five minutes. A slight dyspnoea, which persisted after the disappearance of the graver symptoms, was treated for three weeks by the monobromide of camphor.—*Lyon Medical*.

HOW TO MAKE A POULTICE.—Dr. Brunton in *Brain*: The common practice in making poultices of mixing the linseed meal with hot water, and applying it directly to the skin, is quite wrong; because, if we do not wish to burn the patient, we must wait until a great portion of the heat has been lost. The proper method is to take a flannel bag the size of the poultice required, to fill this with the linseed poultice as hot as it can possibly be made, and to put between this and the skin a second piece of flannel, so that there shall be at least two thicknesses of flannel between the skin and the poultice itself. Above the poultice should be placed more flannel, or a piece of cotton-wool, to prevent it from getting cold. By this method we are able to apply the linseed meal boiling hot, without burning the patient, and the heat, gradually diffusing through the flannel, affords a grateful sense of relief which can not be obtained by other means. There are few ways in which such marked relief is given to abdominal pain as by the application of a poultice in this manner.—*Boston Jour. of Chem.*

A PERFUMED SOLUTION OF IODOFORM.—The objection to the use of iodoform, on account of its unpleasant odor, says the *Medical and Surgical Reporter*, has led an English druggist to prepare a perfumed solution. This is prepared by shaking tincture of iodine with a fragment of fused potash until the odor is removed, and covering the odor of the iodoform produced by the addition of eau de cologne or lavender water. The author speaks of lint that has been dipped in this liquid, and afterward dried, as being a very good application to indolent sores.—*Richmond and Louisville Med. Jour.*

A REMARKABLE CASE.—Dr. Hoffmann, in a Vienna medical journal, relates the following remarkable case: A man, aged forty, fired a pistol shot at himself in the region of the left breast. A skin-burn resulted of the size of the palm of the hand, but no rupture of the continuity of the external skin. Beneath this there was an effusion of blood; the costal cartilage was broken. In the pericardium lay a pound and a half of blood; and at the apex of the heart, on each side of the longitudinal sulcus, was a rent of the muscular fibers, extending into the cavities of the ventricles.

ATLANTA Medical and Surgical Journal.

VOL. XVI.] FEBRUARY—1879. [No. 11

Original Communications.

Editor Atlanta Medical and Surgical Journal :

Please insert the inclosed letter from Dr. Stanford, of Columbus, Ga.

There is no question but that the Doctor gives the history of the operation in America. In my remarks before the Academy of Medicine, reported in the October number of the JOURNAL, I did not intend to convey the idea that Dr. Pancoast was the first surgeon to remove the parotid gland, but mentioned the fact to show that as late as 1849 prominent surgeons doubted the possibility of its complete extirpation.

Very truly, etc.,

W. F. WESTMORELAND.

Dr. Willis F. Westmoreland, Professor of Surgery Atlanta Medical College :

MY DEAR FRIEND—In the October number of the MEDICAL AND SURGICAL JOURNAL, published in your city, discoursing upon the operation for the extirpation of the parotid gland, before the Academy of Medicine, you are reported as saying that when you were a student "Dr. Pancoast successfully executed it, and presented the specimen to Dr. Gibson, demonstrating its feasibility."

That justice may be fully awarded to the surgeon to whom it is due, I trust, my dear Doctor, that you will permit me to place upon the record the result of my knowledge upon this subject.

The operation for the extirpation of the parotid gland was first performed in this country by Dr. Warren, of

Boston, Mass., in 1798. After this it slumbers, and we hear nothing more of it until 1826, when it was again performed by Dr. George McClellan, of the Jefferson School of Philadelphia. Dr. McC. successively performed this operation in eleven cases. Ten of these cases, including the first, were completely successful, ending in the restoration to health.

Dr. Wm. Gibson, of the University, the rival school to the Jefferson, denied that Dr. McClellan had removed this gland, alleging that it was one of the many lymphatics situated on the gland.

Professional excitement was worked up to the highest pitch between the friends of the rival schools, and personal feeling was much embittered.

Prof. Granville Sharpe Pattison, occupying the chair of Anatomy in the Jefferson school, demonstrated the entire feasibility of the operation—declaring that Dr. McClellan had removed the gland in its entirety, thereby giving to him the credit of establishing it as an operation to be performed.

Directly or indirectly, growing out of the controversy, a hostile meeting took place between Prof. Pattison and Gen. Cadwallader, who espoused the cause of Prof. Gibson.

A resident student of medicine myself, during the years 1845, 1846, 1847 and most of 1848, at the University of the city of New York, Prof. Pattison, then occupying the chair of Anatomy in that school, it was my pleasure often to listen to his demonstration of the practicability of the operation; and it was his delight to give all credit to Dr. McClellan.

This operation, soon after this, was performed by different surgeons, and I presume often by Dr. Pancoast.

Dr. Gibson confessed his error long before his death.

Dr. McClellan's first case was in the person of a medical student named Graham, who, after recovering from the operation, became a practitioner of medicine in New York.

Very respectfully your ob't. serv't,

F. A. STANFORD, M.D.,

Columbus, Ga., Dec. 4, 1878.

CURE OF OPIUM HABIT.

BY WM. O'DANIEL, M.D., BULLARDS, GA.

In the January number of your JOURNAL, I see that you are requested by an M.D. to give the treatment of the opium habit, or the antidote to the same. As there is much written upon the subject these days, and as there seems to be quite a diversity of opinion as to the most successful plan of treatment, I will give the treatment of a single case, which may be considered of some importance.

I think, as a rule, the reduction system is not a successful one, not because it is not a good one, but because patients will not conscientiously and strictly adhere to and submit to it. It is, in my opinion, the most rational plan and the least hurtful to the patient, if the plan could always be enforced by a physician; but patients and nurses rarely ever follow such directions honestly. Therefore, when it is impossible for the attending physician to have his directions properly executed, I am decidedly in favor of abandoning the habit altogether. True, it is sometimes very painful to the patient. I have known many victims of the opium habit, as well as those of the whisky habit, to try unsuccessfully the reduction plan, or "tapering off" plan, as they style it, and I have frequently known the tapering end to become the larger, simply for the want of positive determination to control when the system absolutely calls for a stimulant.

Mr. P., of Twiggs county, an athletic man of about forty years, weighing two hundred pounds, in 1869 commenced to relieve every ill and unpleasant sensation by the use of morphine. He soon found himself a confirmed victim of the destructive habit—so much so that he was unable to keep awake whenever still, and his neighbors and family began to discover mental aberrations.

The habit continued gradually to grow until less than two or three drams per week were totally insufficient to produce the desired effect—he always taking it per orem. Of course he saw that the cultivation of the habit promised

nothing but ruin. In the summer of 1877, after having been a slave to the habit for eight years, he determined to abandon it, even at the risk of his life. He soon found himself confined to his bed, and sent for me, and told me that he had resolved to take no more morphine, and that he desired to place himself under my professional care. I told him that I had no confidence in his fixedness of purpose and will to leave off entirely the habit; but if he was in earnest, I would endeavor to aid him in the good work which he had resolved to perform. Upon examination I found him with a distressing diarrhoea, profuse perspiration, exceedingly nervous, and frequently he could not concentrate his thoughts sufficiently long to complete a sentence, *with general prostration*. I put him upon alcoholic stimulants, chloroform, chloral hydrate, bromide of potassium, quinine, strychnine, capsicum, etc., during his sickness (for he was severely sick), of course alternating and using those which I thought had the most happy effect. But he apparently grew worse for two weeks, was very much reduced in flesh, had no appetite, and several times I debated in my mind the propriety of returning him to the habit, and leaving him to work out his own destiny. Until he commenced to convalesce he weighed less than one hundred pounds, not half what he weighed when he commenced the habit; but finally he began to improve, and in six weeks he was cured of the opium habit, and had no desire for any kind of a stimulant, and is to-day as fine a specimen of health as any country ever produced. I do think the case in question was, during his attempt to abandon the habit of opium-taking, the greatest sufferer I ever knew. He complained of the most excruciating pains in his limbs, and indeed in his whole body. He said they were equal in every way to the worst form of toothache, which is said by a poet of reputation to be "the hell of all diseases."

A FEW DAYS' OBSTETRICAL EXPERIENCE.

By R. W. WESTMORELAND, M.D., WASHINGTON, ANN.

QUININE AN ECBOLOG.

I have just been called in to attend two cases of miscarriage in which premature excitement was brought on by the administration of quinine, as the history of the two indicated to my mind.

Mrs. —, æt 35, multipara, had been having chills for a day or two, when she took a "large dose of quinine" in the morning for the third chill. In about three or four hours she had a slight chill with consequent fever, and in a short time decided labor pains. These were only partially checked with opium and viburnum, and the following morning she gave birth to an eight months child.

But a day or two after the preceding, I was called hurriedly to see a lady who was threatened with miscarriage. She, too, had taken two or three "large doses of quinine" for the purpose of breaking the chills. The next day after taking the medicine labor pains commenced: for half a day and a night she was kept on opium and "black haw," with directions to let me know if they did not cease. I made known to the family that she would certainly miscarry if those remedies did not quiet the pains. The next morning they came, but being away from home that day the messenger did not find me; however, upon my next visit, she had so far recovered as to lead me to feel no further uneasiness.

I believe it has been demonstrated by Hoffman, by experiment upon animals, that irritation of the hypogastric plexus produces motor activity of the circular fibres of the uterus. Upon this supposition the theory might reasonably be based that quinine, in addition to its general tonic action upon the spinal nervous centre, adds that property of being capable of so perturbing the normal equilibrium of involuntary functions as to bring about a deleterious termination.

HOURGLASS CONTRACTION.

Retained placenta I have always found to be not only troublesome, but critical, since the causes producing the difficulty are connected with a train of circumstances which presents a decided predisposition or actual existence of other and equally as grave complications. Whether the retention is occasioned by actual adhesions to the uterine walls, or from the utter inability of the uterus to throw off the mass (from an inherent or reflex incapacity), the general consequences amount to about the same, viz: free and often dangerous hemorrhage, inflammation and septicæmia from retained fragments of placenta, or blood-clots. Recurring attacks are often the sequel of these primary difficulties, until a predisposition to some puerperal exigency is almost erradically established. In the following case of hour-glass contraction, the history as obtained was in support of this view:

The lady had a miscarriage, and at her next pregnancy she underwent the trouble of removal of placenta. She described it as having to be "taken away by piecemeal." Two more miscarriages followed, with the placental difficulty in each, and then the fourth one, at which time I was called in. She had been having "chills and fever" for a day or two before, and when I saw her, was having labor-pains. I commenced giving her opium and virburnum until I got her quiet, when I left, with directions to keep the remedies up at regular intervals. Next morning the pains came on actively, and before I could get to her she gave birth to an eight-months foetus. Living several miles off, and being very busy, I did not see her till three hours after the delivery. Up to that time she had had no after pain—no hemorrhage to amount to much—but complained of great prostration. Pulse was fast and feeble; pale, anxious countenance, and exhaustion much too excessive for only an hour's active labor. I administered brandy and ergot until I had given two good doses of each, when, no pain having made its appearance, after waiting a reasonable length of time, I made an effort to take the "after birth away" This I found impracticable from the fact that it was grasped firmly, about midway of its mass,

by the band of uterine constriction. At first I was prone to believe that the os uteri had contracted from some local cause, (probably reflex sacral) but bi-manual and rectal examination fortified me in the conclusion that I had to deal with the hour-glass trouble. Full doses of laudanum with whisky finally removed the spasm, and I took the placenta away with little trouble.

The uterus contracted down finely, and with the exception of being very weak, with slight fever, the patient did very well. Full doses of quinine were given every night for two or three days, with twenty-grain doses of bromide potash once each day for the same length of time, when the patient was pronounced well.

Reports of Societies.

ATLANTA ACADEMY OF MEDICINE.

H. F. SCOTT, M.D., REPORTER.

ATLANTA, GA., January 13, 1879.

Academy met, President-elect, Dr. J. S. Todd, in the chair. On taking the chair, Dr. Todd made an instructive and interesting address to the members, thanking them for the honor conferred in electing him to preside over their body, and exhorting them to more regularity in attendance in the future.

Dr. Calhoun said he wished to exhibit to the members a rare specimen of disease. The patient, a lady, had received, some eight or ten years previous, a blow on the left cheek, fracturing molar and nasal bones of that side. Since that time there had been a more or less constant swelling and inflammation, together with a discharge of pus. Some two years ago this discharge became very copious.

He was consulted some seven weeks ago, and on exami-

nation found the eye-ball protruding from its socket and hanging down on the cheek; there was ecchymosis of upper lid and severe pain, which had been relieved by morphine-eating. From long exposure of the cornea to the air the eye had been rendered useless and was accordingly enucleated.

The original trouble has thereby not been relieved, no progress whatever ensuing, either for the better or worse, except the relief of the pain; there has been a sloughing of the entire lower lid and nasal bones.

He does not consider the case as of syphilitic origin; it has every appearance of a malignant nature, although he cannot state positively that it is so.

In conclusion, he desired the members to carefully examine the case and express their opinion as to its nature.

Dr. Bak was impressed with the slowness of its action, and is inclined to believe it a slow necrosis following the contusions of the blow; its late occurrence after receipt of the injury could be explained by the fact that flat bones necrose and suppurate slower than the large ones; was of the opinion that when all of the bruised bone had been thrown off the case would progress favorably.

The President remarked that the discussion of this case brought forward the important question as to whether traumatism alone be capable of producing cancer.

Dr. Bak said many cases of *carcinoma mammae* were conceded to have been the result of blows.

Dr. Baird thought that traumatism of a chronic nature, *i. e.* such as maintain a morbid condition for some time in contradistinction to acute injuries, which quickly disappear, might eventuate in the deposit of cancer cells.

Dr. Alexander said this was virtually admitting that blows are capable of originating cancer.

The President does not understand Dr. Baird to mean that all chronic injuries were, or would be, followed by cancerous changes—for instance, that a fracture of the tibia would have such a termination.

Dr. Baird illustrated his position by cases in which cancer of the penis had been caused by the irritation of a lengthy prepuce and accumulation of products of Tyson's glands.

Dr. Calhoun's experience leads him to agree with Dr. Baird. He remembers several cases in point—one where the continuous application of caustics to a pterygium resulted in cancer of the eye-ball.

Dr. Low's experience also leads him to concur in the views of Dr. Baird. Cancer was often extremely difficult to diagnose, and medical practitioners were often at variance as to the nature of a particular case. Instanced a case in his own experience where there had been the widest diversity of opinion amongst physicians of repute.

Dr. J. W. Griggs cannot speak from experience, but thinks the constitution of the patient should be taken into consideration—for instance, where there is a cachexia, the depraved blood repeatedly coming in contact with the source of irritation, develops cancer.

Dr. Park's opinion is that the first case of cancer must have originated from some trauma, and had then become engrafted on the constitution and been handed down to succeeding generations.

Dr. J. T. Johnson thinks a great many cases are not of a hereditary nature, but that irritation of any kind may eventuate in cancer.

Dr. Rohe hasn't any doubt cancer can be of traumatic origin. The structure of epithelioma differed from epithelium only in the different arrangement of its component cells, and therefore any injury to the epithelium may cause that arrangement of its cells characteristic of cancer. The only instance recorded of primary cancer of bone is that by Stricker, in his recent work on pathology. Its cancerous nature, however, has been contended against by some, who are of the opinion that it was merely a bone-cyst.

Dr. Salm thinks it can be of a traumatic origin; related a case confirmatory of this view occurring in Dr. Paul Eve's clinic, where an injury to bones of arm degenerated into a cancer.

Dr. Bak quoted Rokitansky as an authority that chronic irritation *could* produce cancer.

The President is not prepared to disagree with the opinions expressed by the gentlemen, still he thinks there

are weighty arguments in favor of all cases being hereditary. It might be very difficult to determine in many cases, but if examined into, thought evidences of its existence in patient's ancestry could be secured.

Dr. J. T. Johnson propounded the following question to the President, to-wit: A person receives a blow which was followed by cancer. Said person's grandfather had likewise been afflicted with cancer. Now, do you not admit the former case might have been of local origin and independent of any hereditary taint?

Dr. Alexander wished to know if all cases are hereditary, why wasn't the disease developed in every member of the family.

The President believes persons inherit from one or both of their parents a constitutional predisposition to cancer and other diseases. But, just as in consumption, the offspring may inherit the peculiarities of either their father or mother, one of whom may have been entirely free from hereditary taint. In such an instance its failing to show itself in certain members of the family, and its exhibiting itself in others, would be satisfactorily accounted for.

Dr. Rohe said, morphologically, lupus was nearest allied to cancer, and related a case where lupus was present in mother and daughter; still lupus was regarded by the best authorities as not being hereditary.

Dr. Bak said a cancer, if extirpated, will return, while lupus, if removed, does not recur. Said sarcoma was nearer cancer, pathologically, than lupus. He admits that trauma might be its cause, but not in every case.

The President said whilst this subject was under discussion he would ask if arsenic, in the opinion of the members, has influence on the development of cancer. Stated that Dr. J. T. Johnson and himself had recently had a case where they recommended extirpation, but the patient was induced, after consultation by a respectable practitioner, to try arsenic.

Dr. J. T. Johnson said, as is well known, years ago arsenic was much relied upon, and even at the present day some writers believe it beneficial; it certainly is decidedly tonic.

Dr. Bak thought certain remedies had the power of relieving suffering and invigorating patient, and therefore should be used even if they are unable to cure. Stated that Dr. Friedreich, of Berlin, in a case of *carcondina ventriculi* used condurago with great benefit, succeeding in ameliorating the distress.

Dr. Rohe believes arsenic used internally of great benefit in the first stages of cancer. Applied it locally in a case where nitrate of silver, etc., has been repeatedly applied; thought he had thoroughly destroyed it, still it was as palpable as ever. Gave 10 to 12 drops Fowler's Solution *ter die*, and caused it to retrograde.

Dr. J. T. Johnson thought if anywise beneficial it should be used.

Dr. Calhoun said, except as a tonic arsenic had no more influence over cancer than so much quinine.

The President thought if one recovered on arsenic, there had been a mistaken diagnosis.

Dr. Baird has from time to time mentioned cases illustrative of the value of galvanism in various diseases. He simply desired to record the fact that he had recently secured relief in a number of cases of facial neuralgia and sciatica. About these cases nothing of special interest existed, but the results of treatment are of practical importance, and should be known generally by the profession.

Dr. Griggs inquired if Dr. Baird had ever used it in spasmodic stricture of the urethra, stating it had been recommended by Dr. Otis.

The President asked Dr. Baird if neuralgic parts were generally sensitive to pressure; thought they were relieved by pressure.

Dr. Baird replied that a broad, firm pressure relieved neuralgia, but pressure with the points of the finger is painful; relies on galvanism alone in many cases, whilst in others use it in connection with other remedies.

The President stated he had recently found *tr. guaiac* to be very beneficial in tonsillitis, and recommended it to members for trial. Given in half-drachm doses every four or five hours.

Dr. J. T. Johnson said it was recommended in Brown's

"Diseases of the Throat" for various affections, used both internally and locally.

Academy adjourned.

ATLANTA, GA., January 20, 1879.

Dr. P. R. Cortelyou reported the following case of epilepsy, the result of a fracture of os frontis, nineteen years previous, cured by long-continued use of sulphate of atropine:

In November, 1873, I was called to attend F. W. Moores, aged 32 years, during an attack of typhoid fever, and while visiting him was informed by his wife, who had been married to him about two years, that during that time he had been subject to epileptic convulsions, which had been increasing in frequency till, before the attack of fever, they occurred several times a week, and that his mind was becoming considerably affected by them. He had been under the care of several physicians, and Dr. Brown-Sequard among them. He had prescribed the bromides in large doses with strychnine, and applied small blisters to nape of neck and head. Thus far no treatment had the slightest effect on the disease. During the continuance of the typhoid fever the fits did not occur, but as soon as convalescence was established they returned.

Upon tracing very carefully the history of the patient, I learned that in 1860, while working in the navy yard machine shop at Boston, endeavoring to replace a band on a drum, he was thrown from a platform to the ground, a distance of 17 feet, striking his head on the left side against the corner of an iron box, thus causing a fracture of the os frontis about one inch in length, with depression, being badly comminuted and the eye protruding from the socket. Severe convulsions immediately set in, lasting several hours. After a day or two he complained of severe pain in left ear, which was followed by very offensive straw colored discharge. He also had a good deal of hemorrhage from posterior nares. At this time, no one could walk across the room or touch the bed without the patient complaining of intense pain. There was also great intolerance of light. All the physicians who saw him at the time

were of the opinion that there was also a fracture of the skull, and considered his case hopeless. These facts were taken from the *Boston Medical Journal*, in which an account of the accident was published.

Upon questioning some members of his family, I learned that at times he had been subject to fainting spells more or less frequently, and on account of them was obliged to leave the naval service, in which he was employed. His family had concealed his trouble, so that his wife was not aware of his former history, and therefore thought the epilepsy of recent occurrence. On examination, I found a depression of bone on left side of temple about an inch and a half in length. The question of trephining was considered, and upon consultation with Dr. James R. Wood, of New York, it was deemed inadvisable, on account of the extent and location of depression. Therefore, as he had tried all other methods of treatment without benefit, I recommended a trial of sulphate of atropine in gradually increasing doses, according to the plan of Prof. Trousseau, of Paris. I informed his wife that it would require great patience and long treatment, but it might succeed, and was worth a trial as a last resort. She consented, and agreed to carry out faithfully all instructions, January, 1874. I then ordered the following:

R.—Atropine sulph., gr i.
Spts. vin. gallici, m 100.

M. S.—One drop at dose once a day—in the morning, as the fits occurred chiefly in the day time. This was increased by one drop at the beginning of every month until he took 1-10 of a grain daily. The first effect of the medicine was to quiet excessive muscular twitching at night, thus giving patient calmer and more beneficial rest. Next the fits, instead of occurring two or three times a week, came only once. Then an interval of ten days elapsed. They also were not severe. The interval between them continued to increase with an occasional relapse to old condition. After he had been using medicine for about one year, fits did not take place oftener than once in three months. When patient had taken 1-10 grain atropine daily for a month throat and eye symptoms appeared, showing that

the drug had been carried to maximum dose. It was then gradually reduced. After having been under treatment for seventeen months fits seemed to have been reduced. The medicine and patient moved to the country, where he employed most of his time in garden work.

Since October, 1875, he has had no recurrence of fits; his mental condition has also improved so that it is nearly as good as it ever was, so his friends say. The case is interesting, from the fact that all other methods of treatment had been tried, without success. Again, on account of long standing of disease and the cause of its commencement. How did the belladonna act? It seems to me by quieting nervous irritability, and thus breaking up the habit of the nervous system to giving way to irritation; in fact, altering the nerve force, rendering it less susceptible to irritation.

Prof. Trousseau does not consider the treatment as a specific by any means, but says in his hands it has proved the least inefficacious of any he has tried, though often failing. Another point he makes is: "That the remedy is to be trusted in so far, as it is to be administered in accordance with certain rules, which should not be infringed on. When a disease has deeply permeated the organism, one cannot cure it in a short space of time." It is necessary for success to have a careful and competent person to carry out directions to the letter. My patient's wife did not fail a single time in the seventeen months in giving the medicine, and at the prescribed time. Is not then this method of treatment worthy of further trial, especially when all other means have failed?

P. R. CORTELYOU, M.D.

Atlanta, Ga.

Selections.

ALIMENTATION IN HEALTH AND DISEASE.

By E. C. ANGELL, M.D.

"True temperance is true luxury."

Alimentation is a matter of primary importance in hygiene as well as therapeutics, and a correct system of dietetics is the corner-stone of human health; the judicious administration or withholding of food is often more than half the battle against disease. Under these truisms there lurks a formidable array of knotty problems which may be summed up in the interrogatory, What is correct alimentation? This, in the language of Lord Bacon, "is a matter that comes home to every business and bosom," or to speak with more anatomical strictness, to every abdomen. Not only must we determine what we shall individually eat and drink, but, as parents, many of us must settle the same question for the children whose welfare is one of our dearest interests, and, as physicians, the determination of the diet of the sick or convalescent is a constantly recurring duty.

This subject is treated more or less fully in every course of medical instruction. It has been the theme of abundant experiment and copious dissertation. Notwithstanding, the advocates of rival theories maintain, with equal ardor and sincerity, the most opposite views, and in actual practice ninety-nine out of a hundred are governed more by chance or custom than by any well conceived dietetic principles.

In ordinary health, men belonging to the medical profession, to other professions, or to no profession, are apt to indulge freely in whatever pleases their palates, with small regard to consequences; and even after disease has laid a heavy hand of warning upon them, the question is seldom what will be the most beneficial and strengthening, but rather can they eat this or that coveted luxury with impunity.

The average American does not give one-quarter of the attention to the welfare of his digestive system that he gives to the health of his dog or his horse. And what is the consequence? A nation of dyspeptics, and a greater mortality from the breaking down of the outraged digestive organs than even from the dreaded scourge of phthisis.

As a nation, we not only surpass all other nations in the multitude of our dyspeptics, but we have the poorest teeth and the best dentists. So long as the taste is pleased, the stomach may take care of itself, and the conviction is often forced upon us that far too many live to eat, and far too few eat to live.

A just appreciation of food esteems it not alone for the immediate gratification it affords, but rather for the health which it confers, the strength which it imparts, the life which it prolongs.

Far be it from me, however, to frown upon those who take pleasure in eating. The ascetic English nobleman who breakfasted on an emetic, dined on a cracker, and luxuriated once a week on an apple, is by no means a dietetic model to be recommended. I am in favor of an abundance as well as a variety, and firmly believe that the eating which is the most profitable for health and strength, as well as long life, is at the same time the most truly pleasurable.

I am quite willing to admit, however, that this doctrine is a little like that embraced in the familiar saying, "Be virtuous, and you will be happy." This is not disputed; but, as human nature is at present constituted, virtue is rather arduous, and the most of mankind prefer to take their chances without being over-righteous.

The fundamental question upon which the students of dietetics naturally divide, is whether man is naturally phytophagous or zoophagous, or both; whether he was intended to eat animals or plants, or to subsist upon either according to circumstances.

This is a question for the comparative anatomist, and admits of only one solution. It has recently, however, been admirably presented by Gustave Slickeyson, a Ger-

man thinker, trained in the school of Darwin and Haeckel.

Slickeyson draws a minute comparison between the carnivora, the frugivora and the omnivera, represented by the tiger, the ape and the hog, and shows that man agrees in his physical characteristics far more closely with the tree-dwelling ape than with the blood-thirsty prowler of the jungle or the omniverous glutton of the sty.

In the arrangement and form of the salivary glands, in the conformation, number and structure of the teeth, in the size and shape of the stomach, in the length of the alimentary canal, and in many minor particulars, man shows a striking resemblance to the frugiverous gorilla, and an equally striking contrast to all of the carnivora, while the omniverous hog bears just such a mixed likeness to the carnivora on the one hand and the frugivora on the other, as might have been anticipated from the mixed nature of his food.

A careful consideration of these facts admits of little doubt that man was designed to dwell among trees and to live upon fruits, and curiously enough this conclusion of science tallies closely with the theological version of man's first estate.

Admitting these conclusions as correct, many will say it by no means follows that the diet which man in a state of nature was evidently designed to appropriate and assimilate, is not susceptible of great modification and improvement.

Man is certainly a being provided with extraordinary powers of adaptation, and doubtless soon discovered that by means of nets and traps, and the transforming influences of fire, the flesh of animals could be added to nature's *menu* of berries and fruits, leaves and seeds. Nor was there lacking, perhaps, good and sufficient reasons for this innovation, man being driven to this course by insufficient supplies of vegetable food, just as at the present day an animal diet is compulsory among the natives of the polar regions, or to cite an extreme case, shipwrecked mariners are sometimes forced to prey upon each other.

To choose an unnatural diet, however, upon compulsion, is very different from continuing that diet when im-

proved cultivation of the earth has placed ample stores of the food nature designed for us at our command. The exiled trapper in the forest, with flesh, fish, and fowl of a dozen varieties on the one hand, and only a few handfuls of berries and nuts on the other, may very well group himself among the carnivora; but the more fortunate dwellers within the reach of farms, gardens, and orchards may profitably pause and inquire whether he shall nourish his body at second hand upon the carcasses of defunct animals which in their best estate are laden with effete elements, or at first hand upon the luxurious fruits, wholesome grains, and nutritious seeds in which Nature in her munificent wealth has stored up every element needful for his perfect nutrition.

It is not my purpose at this time to enter upon any of the moral or sentimental objections to the slaughtering of animals for human food, or to dwell at length upon the familiar argument against the use of flesh as an article of diet. From such undisguised evils as the dangerous trichinosis, the occasionally deadly poisoning of the unfortunate eaters of certain kinds of fish, to the disputed effects of beef tea in stimulating instead of strengthening convalescents, there is an array of damaging facts quite sufficient to convince the reason, though entirely inadequate to make headway against the appetite.

Appetites are artificial and hereditary, which is not strange when we consider the fact that each person has two parents, four grand-parents, and in each succeeding generation the number doubles from four to eight, then to sixteen, then to thirty-two, then to sixty-four, then to one hundred and twenty-eight, so that at the twentieth remove, omitting the factor of intermarriage, each person has over a million ancestors.

As appetites are transmitted like other hereditary tendencies, we soon come to regard supposed necessities, which arise from causes we are not apt to consider, as indispensable, which are in fact our worst enemies; and many who boast of being free men are really the most abject vassals.

The popular use of animal food, and the general opinion that it is strengthening, and that especially those who

work hard cannot do without it, depends upon an acquired propensity as purely artificial and unnatural as the appetite for alcoholic beverages or the cultivated cravings for tobacco.

The average amount of beef-steak employed at a single breakfast produces an effect as essentially stimulating as a glass of wine; and those who think they cannot do without it are as much mistaken as that quite numerous class who think beer is necessary to their physical well-being.

This stimulation is curiously confirmed by the fact frequently noticed that upon changing from a diet largely composed of animal food to one containing essentially the same elements in a vegetable form, there is often a temporary feeling of discomfort and weakness, closely corresponding to that experienced by a reforming inebriate.

In choice, fresh, well-cooked beef from a healthy young bovine there is, aside from the effete elements it contains, a large proportion of the nutritious properties which in themselves are requisite to maintain the human body in its highest health and strength.

In the supply of carbon, for instance, it is nearly equal to a like weight of potatoes; and in supplying nitrogen, an ounce of such beef is more than equal to eleven ounces of potatoes.

These facts, casually considered, are calculated to give the impression that there can be no dietetic equivalent for flesh food, and that, whatever may be plainly urged against it, beef must remain the foundation and chief staple of our modern civilized dietary. This assumption, however, is erroneous.

The true basis of alimentation is not beef, but wheat; and in a natural and rational system of dietetics, wheat and the allied seed foods, including beans, lentils, peas, and rice, must take the place now usurped by the allied animal foods, including butter, cheese, eggs and milk.

Next to these should come the appetizing juicy fruits, and then the plant foods, which are neither seeds nor fruits, and which are generally styled vegetables. After these the various animal foods, and last of all the stimulating spices, beverages, and other food adjuncts, which

unfortunately rank so high in our present ill-advised and ill-proportioned dietary.

The fowl or the joint occupies the post of honor, while the loaf is thrust to one side and too often forgotten, or overwhelmed in the crowd of seasoned dishes, or supplanted by cakes and pastries, from which the glorious vitality of the wheat has been successfully extracted. In fact, the miller and the baker between them have so contrived to emasculate the king of grains that we need not wonder that bread has been dethroned by beef, and even among the poor, by demoralized, ignoble pork and beer.

The true life giving, mental, moral and physical force-producing bread is neither more nor less than sound, ripe wheat when deprived of its thin outer silicious, innutritious husk, coarsely ground and mixed simply with water, and subjected to just that degree of kneading and baking that will suffice to prepare it for mastication, insalivation and the subsequent action of the gastric juice.

The lightness which is always sought in ordinary bread, and which is too often absent through the agency of yeast, through aeration with carbonic acid gas, salerats, or baking-powders, is more effectually secured by kneading the dough into small rolls a little larger than the largest macaroni.

These rolls have received the appellation of sticks, which is not inappropriate, as they will be found upon proper employment to "stick to the ribs" in a manner paramount to any other alimentary substance. There is additional fitness in denominating these rolls as sticks, as they may be said emphatically to constitute the staff of life. The same amount of money ordinarily paid for an average loaf of bread, which is comparatively worthless, will purchase as much attrition flour as will, with the requisite manipulation, produce bread enough to supply six times the strength.

These crisp sticks are characteristic as the Britons' plumb pudding, the Italians' macaroni, or the Russians' pumper-nickel, and far superior to either as a suitable food for all ages, classes and conditions, and every way worthy to become a distinctive national alimentary staple.

The value of this bread cannot be easily exaggerated, and its habitual employment in a family I would consider a greater gain than the abandonment of animal food in favor of ordinary white bread, cakes and pastries.

There are serious objections to bakers' bread from the fact that the flour from which it is made contains little except starch, and is still further deteriorated by fermentation. It is always surcharged with water, commonly mixed with an excess of salt, and often adulterated with alum, ammonia, borax, potatoes, soda, soap and other objectionable substances.

The average household bread, though less adulterated, has little value, is rarely masticated, and even when buttered is swallowed with so much difficulty that it is generally washed down with hot drinks. It is a fruitful source of constipation, which succeeds to diarrhœa, and ultimately to dyspepsia and its numerous attendant disabilities.

In the sticks we have every nutritious element of the grain, with no fermentation, with no cryptogamic vegetation; and we are equally certain that no deleterious chemical or mineral ingredient has been added. We have, furthermore, a substance that must be chewed, as it cannot be swallowed without thus insuring due mastication, insalivation, and correspondingly increased ease of digestion.

Attrition, or cold-blast wheat, coarsely ground and unbolted, contains all the natural nutritious elements of the wheat. And aside from this advantage, it possesses the mechanical properties that distend the intestines and thereby affords the requisite stimulus to peristaltic action, so that this bread, employed at proper intervals, in proper quantity, and when properly masticated, promotes digestion, and may be considered in no small degree antidotal to dyspepsia and its attendant consequences. For children it is especially valuable, and its substitution for common bread, and the use of fruits instead of flesh food, until the deciduous teeth shall have given place to the permanent dentures, would be of incalculable benefit and would contribute to supply a better quality of teeth. The early loss of these organs furnishes conclusive evidence, even without other proof, that the prevailing system of dietetics is radically wrong.

Cracked wheat, corn, oat and rye meal and other mushes have long been the main dependence of those who have believed in dispensing with flesh; but they are not to be compared with the bread I have described, except for those who are too young or too old for teeth. The chief objection to mushes is that they are generally gulped without chewing.

After placing one trencher of wheaten sticks in its proper position as the central attraction of the table, the next step is to fortify it on every hand with an array of fruits so attractive and varied as to prevent desertion back to other less nutritious substances.

The variety of food of this character which may be easily obtained is calculated to surprise any one who has not given the subject attention, as there are few places in this country in which a family sufficiently prosperous to have a daily supply of chops, steaks or joints may not replace them with an equal variety of fruits.

An important incidental advantage of this diet arises from supplying in the form of fruit-juices nearly all the liquid the system requires, and this too with water as pure as that obtained through the most careful distillation, and thus obviates the temptation to the common mistake of drinking at meals. The delicate and delicious flavors of fruits appetite and afford a natural zest, and check the disposition to indulge in condiments; and, moreover, despite the large proportion of water contained in fruits, there is in most of them no inconsiderable amount of nutrition.

Apples have in all times occupied a prominent place as food, not only because of their intrinsic merits, but from their historical relation to the garden of Eden. This excellent fruit has alone in many instances for months, and in not a few for even years, sustained life comfortably and completely in full vigor. This fruit is generally abundant and cheap, and in the many kinds furnished by improved cultivation far surpasses any other, affording upwards of two thousand varieties. It ripens early and late, and may with comparative ease be preserved in good condition during the greater part of the year. The plump limbs and rosy cheeks of children fed freely upon apples would

be a revelation to those who have not investigated the advantages of fruit as food.

Neither apples nor other fruits, however, should be eaten by adults or children except at meals. There is no objection to baking, steaming, stewing or roasting the apples, although the best results may be expected from the fruit uncooked.

Pears are less abundant and more perishable, and in less variety, and are correspondingly more costly. They hold a place, however, of too much importance to be overlooked. This fruit cannot be too highly esteemed for its distinctive flavors, and it has been claimed by some writers that pears have a specific value in consequence of their containing no inconsiderable amount of iron.

Peaches are generally abundant and cheap for several weeks, and those who have once used this substantial food will not fail to provide it in unlimited quantities. All persons of gouty diathesis should make this fruit their chief alimentary staple during its season; and from the relatively small amount of sugar it contains, it is the most available of all fruits in diabetic diseases. I have never yet met so confirmed a votary of animal food that he could not be tempted by wheaten sticks and the delicious Crawford Superb, or the appetizing Jersey Rareripe.

Those unaccustomed to fruit as food might be more or less apprehensive of discomfort and disturbance from its use in hot weather, but I have rarely failed to find it a sovereign corrective to functional disorders of the digestive system when taken at proper intervals as a part of, or as constituting, the entire meal.

Fruit eaten between meals or at dessert, when too much dinner has been eaten already, is quite another matter, and a digestive system that would not rebel against such abuse must be sadly deteriorated.

Another fruit of generally recognized excellence is the grape. This is not only a highly esteemed table favorite, but its good qualities have given rise to grape cures.

Cherries, currants, plums and prunes, though less abundant, are nevertheless worthy of attention in their season, and when carefully dried are available for all seasons.

The strawberry needs no enlogium, for everybody is in accord with quaint old Fuller, that "doubtless God might have made a better berry, but doubtless God never did."

Blackberries, raspberries and whortleberries, that follow, though not such universal favorites, are scarcely inferior in excellence, the blackberry especially being among the most salutary of fruits.

Figs are among the most highly esteemed of American fruits. They are abundant throughout the Southern States, but do not admit of transportation, and when dried are inferior to those of Italy and Turkey.

The orange is well known to be one of the most agreeable of common fruits, especially grateful and refreshing, and generally admissible under almost every condition of sickness, convalescence or health.

Bananas, the universal food of the tropics, and the daily bread of whole tribes of men in its native clime, is one of the most substantial of fruits, the "fig" of Paradise, named in honor of its having been the chief food of the wise men of the East, the Brahmins. It consists largely of starch, and, in addition, of a considerable amount of nitrogen, and is therefore of superior food value to the ordinary starchy preparations of arrowroot and sago, which require cooking.

Dates in their native home hold the same relation to the multitude as the banana—they are the bread of the desert, and cannot be outranked in nutrition and wholesome qualities among dried fruit. Without considering fruit in further detail, and conceding, for the sake of the argument, that we have established as a central attraction pure wheaten, unadulterated bread, and around it a generous supply of fruit, it only remains to fill the outskirts of the table with simple preparations of barley, corn, oats, rice and rye, and especially of beans, lentils and peas, which are rich in nutritious elements not largely supplied in either grains or fruits. According to Josephus, lentils constituted the food that sustained the builders who constructed the Pyramids.

Careful consideration will discover that our table, to use the current banquet phrase, is groaning beneath its burden of the highest products of the vegetable kingdom ;

and this is the fountain head, the source of all nutrition.

Here is nothing of a mineral nature, not even common salt, except as Nature has distributed it; here is nothing from the animal world, not even butter, eggs or milk. In fact, here is nothing but fruits and seeds, the various grains ranking as seeds; and in these, I repeat, we have the very highest products of the vegetable kingdom, comprising in themselves, in the best and purest form, every requisite element for the complete and correct alimentation of man. I look upon this regimen of seeds and fruits as the ideal diet, to be kept always in view, and approached in practice as closely as circumstances will admit.

Those who use this regimen will have little desire and less occasion for alcohol, opium and tobacco; and all who have become the unwilling slaves of either of these agents may most easily and most readily effect their emancipation by adopting the ideal diet I have described.

Outside of this range of food we have the potato, which is almost a seed; and next perhaps in rank, the tomato, which is almost a fruit. Beets, canteloupes, carrots, cauliflowers, melons, squashes, turnips, parsnips, pumpkins and other vegetables might be added for the sake of variety. Any garden products, however, which depend upon sauces and seasoning to make them palatable, are not worth the cooking, and should only be used from necessity.

The extensive use of brandy and wine sauces, with gravies and rich seasonings, are practically so many confessions on the part of flesh eaters of the truly insipid, if not offensive, flavors of their boasted viands. Many varieties of game are much to be preferred, when fresh, to our domestic animals; and young meats, like lamb and veal, are highly objectionable; and notwithstanding Charles Lamb's rhapsodies on roast pig, I would rigidly enforce the Mosaic law against the obese swine. I fully concur with the sentiment expressed by Dr. Adam Clark, who said, "If I were to make an offering to his Satanic majesty, it would be a hog stuffed with tobacco."

Fish, notwithstanding its extensive use, has little value as food, especially when long out of its native element, and when salted, is probably, next to pork, the most dam-

aging of animal aliments, and should be used only as a matter of positive necessity.

Milk, cream, butter, cheese and eggs are forms of animal food which many opponents of flesh, fish and fowl have freely used. Milk, necessary as it is when naturally secreted for the infant, is not always acceptable to the adult. In fact in many instances it taxes the digestive system to an extent that amounts to positive injury. The presence of the permanent teeth may be regarded as evidencing the importance of the use of such food as will furnish enjoyment for these very important organs, for want of which, like the unused key, they become injured and impaired.

Cream is not only the most universally grateful, but is unquestionably the most salutary of animal fats, and when fresh and newly transformed into butter—before the addition of salt—while less salutary, is to many made still more acceptable. The general burlesque upon this substance which is found in the average boarding-house, and is heavily salted the better to disguise its significant strength and to increase its weight, should be banished from civilization.

Cheese is certainly clogging, and I think is rarely relished by those who have been fortunate enough to retain normal tastes, and the acme of perversion may be said to be reached in the consumption of limburger.

Eggs are too highly concentrated for general use, the albumen, as commonly cooked, taxing the digestive system so as largely to detract from their advantages.

So far as the various beverages are concerned that usually find places on our tables, it may be already inferred that I would banish them all, water included, and especially iced water, in favor of juicy fruits, and with the free employment of fruits and vegetables none will be needed.

Water, being the universal solvent and the vehicle of all nutrition, some two hours after eating, may be drank as freely as thirst requires. As much of this fluid finds its way into the blood, the purer it is the better.

Mineral waters, whether artificial or natural, should be avoided under all circumstances, unless pure water cannot

be procured. Pure water is always grateful to pure tastes when needed, and it is only to perverted tastes that it seems flat and insipid. Artificial or natural mineral waters generally contain common salt in such amount that they fail to satisfy thirst, and most of them are impregnated with other salts that are damaging, deleterious and destructive. Arsenic figures in some of them quite conspicuously.

Coffee and tea are much more injurious than are generally supposed. Strong coffee will at least promote, if not indeed cause gout, and its continued employment seriously impairs the blood, irritates the kidneys, and deranges the nervous system. Tea, with its abundant adulteration, is more harmful. Chocolate, habitually used, is probably more damaging than either. For those who cannot be made to believe that it is profitable or possible for them to do without hot drinks, I believe in some instances induced them to employ parched wheat as the least injurious of unnecessary beverages.

Alcoholic potations and preparations in all their forms, I have no doubt, aside from their stimulating effects, influence the vital process of retarding the metamorphosis of tissue, thus retaining in the system effete principles which it would be much better to be well rid of.

The use of condiments, sauces and spices is a confession of poor cooking, worn-out appetites, and jaded tastes, which awaken commiseration in those who know the value and sweetness of wheat, and can truly relish the flavor of a peach, a pear, or a pine-apple.

Among the most mischievous and universal of seasonings is sugar, which is sufficiently abundant in fruits, grains and vegetables. It is hard to estimate the amount of discomfort and disease which arises from this one source, aside from the cost, which, though large, is the smallest of the detrimental consequences, even when free from positively poisonous adulterations.

The damaging effects of this agent are admirably enunciated by Victor Hugo when he addresses woman in the following language: "Remember, you eat too much sugar. You have but one fault, oh woman! It is that of nibbling sugar. Oh, consuming sex! [Now listen atten-

tively. Sugar is a salt. Every salt is dessicating. Sugar is the most dessicating of all salts. It sucks up the liquid from the blood through the veins. Thence comes the coagulation, thence the solidification of the blood, thence tubercles to the lungs, thence death. This is why diabetes borders on consumption. Crunch no more sugar, therefore, and you shall live."

The next in importance and next in mischief is common salt, and notwithstanding the weight of popular and scientific opinion on the subject, I think we are far better off without it, other than as distributed by Nature in fruits, grains, and vegetables. It may not debauch the taste to the same extent as its associates, pepper and mustard, but conjoined, they constitute a trinity which cries loudly for drink, for more drink, and ultimately for strong drink, and it is hard to estimate how much these allied enemies of our race have to do in making the drunkards who people our inebriate asylums, as well as our criminal courts and prisons.

Instead of the vinegar bottle, lemons should be employed, and the whole array of pickles is little more than a series of insults to the stomach, which it is very slow to digest. Catsup and hot bottle sauces are equally objectionable, and are simply ingenious inventions to hide the otherwise offensive flavors of unpalatable and unwholesome animal aliment.

Aside from the nature of the food there are other points scarcely less important in alimentation. Quality as well as quantity deserves consideration, as well as self-denial. A considerable objection to animal food arises from its concentrated form, and the corresponding case with which too much is eaten before any sense of fullness gives warning to stop, and the artificial fillip given to the appetite by sauces and pickles double the temptation.

The fruit and seed foods I have pointed out as constituting the ideal diet may be used abundantly with much less risk of surcharging the stomach. This advantage the votaries of animal food must forego while they make up their minds to pay for their pleasure by enduring with increased frequency the pangs and penalties of an outraged and demoralized physical organization.

Too often, as well as too much, is a common error in dietetics. Two meals a day instead of three is a golden rule in alimentation. Breakfast at nine and dinner at five is a dietetic time-table that cannot easily be improved for business or professional men. Lunch between is a habit rather than a necessity, and by sedulously avoiding all food at other times, by which I mean to include fruits, and giving the digestive system at the hours named a fair square task, with an intervening period of absolute rest, the best possible condition of the system may be maintained, and by this means alone can we confidently look for a sound mind in a sound body, for a poor stomach necessarily produces a poor brain.

If meats are to be employed at all, they should be restricted to once a day, and then in small amounts, choice in condition and quality, and of a single variety, and used rather as a relish than, as too often, as the main feature of the meal.

LAPARO-ELYTROTOMY.

BY THOMAS WHITESIDE HIMES, B.A., M.B.

The following is the first case of laparo-elytrotomy which I have heard of being performed in Europe.

On Sunday afternoon, July 14th, I was summoned by one of the midwives attached to the Hospital for Women to visit Mrs. O'M——, who had been in labor (at full time) for over twenty hours, without any advance of the child. On entering the wretched house, situated in a court, I was almost overcome by a most offensive stench. It was so horrible that I asked if pigs were kept in the house, really believing it to be the case. I learned, however, that the unfortunate patient was the source of the fetor. I found her advanced in labor to the end of the first stage, the child being alive and in the first position, the head only entering the brim. The recto-vaginal septum was converted into a cancerous mass, compact, inelastic and rough, which extended from the perineum to within an inch of the posterior vaginal cul-de-sac. The upper part of the

posterior and the anterior wall of the vagina were soft and elastic, and the uterus also was apparently quite healthy. The vagina was so narrowed by the new growth occupying its posterior wall that less than two inches remained for the passage of the child. Labor-pains had ceased entirely for over an hour.

History.—The patient was thirty-seven years of age, had been married ten years, and had borne nine children, pregnancy on each occasion lasting the full time. Four children still survived. During her whole married life she had been a rather heavy drinker, her habits in this respect being conformable to those of her husband. Her face and large fatty liver and heart gave evidence of this. Her last child was two years old. For about a year after its birth she became very stout, but subsequently she lost much flesh, and was, when seen, a thin, badly nourished woman. For the past eight months she had been suffering from excruciating pain in the rectum, with occasional attacks of severe hemorrhage, and for the last three months her motions had only come per vaginam. There was a constant and stinking discharge from the anus and vagina. For the last eleven weeks she had been unable to get out of bed, from debility and pain; and for over forty-eight hours preceding my visit she had been incessantly vomiting, being unable to retain anything in her stomach. For some days she had been suffering with diarrhœa. The heart's action was feeble and irregular.

It was evident that operative measures alone could effect the delivery of the child, which was still alive. The limited size of the vagina, which was scarcely two inches wide; the nature of the obstruction, its unyielding character and its disposition to hemorrhage, as evidenced by the serious losses of blood which had frequently occurred spontaneously; and the fact that the child's head had not passed the outlet, precluded operation by the vagina without fatal laceration. Having then just read the interesting paper by Dr. T. Gaillard Thomas, of New York, on laparo-elytrotomy, I determined to try it, as the state of the woman was so grave that Casarian section would evidently cause instant death. As the patient assented to

my suggestion, I had her removed to the Hospital for Women. Owing to the day and the hour, I could only get the assistance of one of my colleagues at the hospital, and I had great difficulty in finding one other medical man at home to help me. At 6:30 P.M. I proceeded to operate, assisted by Drs. E. Jackson and O'Keefe. Had the case not been urgent, I would not have operated with only three pairs of hands, as one of them being necessarily occupied exclusively with the anæsthesia, the two others are insufficient in number (no matter how efficient) for what has to be done. But had the child descended into the pelvis, laparo-elytrotomy would probably have been rendered impossible, and fatal injury would very likely have been done. So further delay was unadvisable.

Operation.—I intended performing this operation under strict antiseptic precautions, as I am in the habit of doing when possible, but unfortunately the spray belonging to the hospital was at the time being repaired, and one which borrowed was not in good order. With the exception of the spray I employed antiseptic measures. The patient having been placed on the operating table and chloroformed, I made an incision through the abdominal wall in the direction of a line extending from the spina ilii ant. sup. sinistr. to the spina pubis. After a little difficulty in distinguishing a layer of fat which simulated the appearance of the omentum, the peritoneum was reached and readily recognized, being much more ample than in non-pregnant women, and hanging in folds at the bottom of the wound. I next passed a blunt probe up the vagina, and by it pushed the anterior vaginal cul-de-sac in the wound. Seizing this with a pair of hooked forceps, I divided it, and passing my finger through this orifice, felt the os uteri. Some slight difficulty was experienced at this part alone of the operation, owing to the small space which existed between the anterior surface of the enlarged uterus and the brim of the pelvis. Having extended the wound, I passed my hand through it into the fully-dilated os, which was occupied by the head and bag of waters. I at once seized a foot and turned, and delivered a living male child without the least difficulty, the placenta being

delivered simultaneously. The uterus contracted rapidly, and there was no uterine hemorrhage. There was not over an ounce of blood lost in the operation, a couple of small arteries, which were divided in the incision, having been at once secured by torsion. In fact, few ordinary labors are completed with less loss of blood. The operation lasted a little over twenty minutes. The wound was washed with carbolic lotion (5 per 100), and closed with gut sutures, and antiseptic dressings applied. The patient was then put to bed with hot bottles, etc. She was very much exhausted, and twice during the operation her heart became ominously feeble. On partially recovering, she became most violent, throwing herself about, shouting and using most abusive language. Three persons could scarcely hold her down in bed. After half an hour she became calmer and more rational, and subsequently had some hot coffee and brandy (ether had been previously injected subcutaneously), which seemed to do her good. From time to time she again grew violent, but speedily sank exhausted, though sensible. She seemed to be rallying, when, after about two hours, she unexpectedly sat up in bed, but in a few minutes grew livid, faint, and sank dying. Artificial respiration was tried in vain for ten minutes, and other measures, but ineffectually, and she shortly expired.

Necropsy.—Next day I made an examination of the parts involved in the operation before the members of my class, going through the steps of the operation, for their benefit, on the right side of the body. A clot, about the size of a couple of walnuts, lay in the bottom of the wound. The bladder and peritoneum were quite uninjured, and all other parts except those intentionally incised. The uterus was well contracted, quite healthy, and the os and cervix free from laceration. There was no trace of cancerous disease in the upper part of the vagina.

Remarks.—That the fatal termination of this case was not a thing to be surprised at will be the opinion of most readers, as well as that Cæsarean section would not have been more successful. My opinion is that the unavoidable hemorrhage, and the shock of cutting through the abdominal wall, laying bare the abdominal cavity, and dividing

the uterine wall, would have caused the diseased and debilitated patient to die on the table. Had she been less violent, or strong enough to have justified one in giving morphia, or continuing the anæsthesia, her life might probably have been prolonged. That laparo-elytotomy is a simple and feasible operation, I believe every reader will admit. It avoids almost all of the capital dangers of Cæsarean section, and is not more difficult. The wound is much less extensive, the peritoneum and uterus are not wounded at all, nor the abdominal cavity exposed to danger from infective fluids, cold, or mechanical injury; the danger of hemorrhage is much less, the shock is less, and the delivery of the child is quite as easy. As compared with craniotomy, this operation is simplicity itself, and the results hitherto obtained much better, being absolutely good for the child instead of absolutely fatal, and for the mother most salutary results have also ensued. Had the cancerous growth in this case been less extensive, so as to leave, say, a passage of three inches in the vagina, and had craniotomy been tried, would any better result have been probable for the mother after the deliberate destruction of the child? I scarcely think so. Craniotomy, when practiced with perfectly healthy tissues, is most unsatisfactory in its results for the mother, and I cannot but think that in such a case as this the unavoidable laceration of the diseased tissues which must have ensued, with consequent hemorrhage, the tediousness of the operation, and the shock incident on it, must have led to a fatal termination in so enfeebled a patient. Even supposing the peritoneal cavity should be accidentally opened, the wound will be far less than in Cæsarean section, and the wound will be situated so as to favor, as far as possible, the escape of any blood, etc., from the abdominal cavity. Considering the easy nature of the operation, the certainty of saving the child, and the strong probability (judging from Dr. Thomas' report) of saving the mother, it is a question how far craniotomy will ever again be justifiable, and whether Cæsarean section should not drop into oblivion. I found my opinion more on the experience of Dr. Thomas and Dr. Skene than on my own single case. But the dem-

onstration in this case of the truth and probability of what had been accomplished by the distinguished New York surgeons makes me think that the introduction (or revival) of this operation will exercise a great influence on operative midwifery in the future. The child is at present thriving.—*London Lancet.*

NOTES OF FOUR CASES OF LEPROSY IN MINNESOTA.

By CHR. GRONVOLD, M.D., NORWAY, MINN.

I. ANÆSTHETIC FORM OF ELEPHANTIASIS GRÆCORUM.

Christen Johnson Hauglum, native of Arnfjord, Sogn, Norway, came to America in 1861, and settled in Long Prairie, Illinois. Eight weeks afterwards, he went to Goodhue County, Minnesota, where he is now living, in the town of Wanamingo.

When he was 24 years old, he was hale, hearty, light-footed and sharp-sighted, and had never been ill. He had been accustomed both to fishing in the sea and hunting in the mountains. He only remembers that during the spring of each year he would be troubled for some days with an eruption upon the lower part of the face, which would itch, and often result in soreness of the surface from scratching. This was, however, of small moment, though it has recurred with tolerable regularity to the present date.

In 1856 he was made ill, as he thinks, by exposure to cold during his excursions upon the sea and on the mountains. He was then confined to his bed for seven weeks, and for some time afterwards was unable to do any work. The disease began with chills, and was characterized by heated skin, headache, pain, generalized and finally located in the left thigh, with a disposition to stretch the limbs, heaviness, drowsiness and insomnia for several days and nights. This was succeeded by a sleep which lasted without interruption night and day for several days. Then he had a cough, from which he still suffers, with

distressing dyspnœa and abundant hæmoptysis, the latter symptom often returning since the date mentioned. After this attack he seemed to be quite sensitive to cold, but declares that in other respects he was perfectly well.

He found, however, that once or twice yearly he would suffer from similar attacks, each accompanied by severe pain in the left thigh, usually in the spring of the year, when the ice was melting, but frequently also in the fall, when the frost set in. He would, on these occasions, generally be confined to his bed for from three to eight days, feeling for some time afterwards very uncomfortable with anorexia and debility. Neither at this time nor for years afterward did he suffer from symptoms of cutaneous disease, such as tingling, pricking, anæsthesia, or pemphigoid lesions.

During his voyage across the Atlantic, in 1861, he had an attack of shivering and fever, more severe than any heretofore experienced. He recovered so far as to be able to work in the harvest-field when he reached Illinois, but later had such severe cough, dyspnœa and hæmoptysis that he thought he would soon die. He however recovered sufficiently to remove to Minnesota.

Here his attacks, though recurring once or twice annually, were less prolonged and severe than formerly. The shivering fits would last for several hours, but when the fever and pain were relieved he would regain his appetite and feeling of general well-being with promptness, and without the periods of malaise heretofore experienced. In a few years, however, his attention was attracted to an increasing numbness in several parts of the extremities. In 1870, sensation had considerably diminished on the peroneal side of the legs and on the ulnar side of the fore-arms, and corresponding surfaces of the hands.

In 1871, excoriations appeared upon the nates, degenerating into sores, which did not heal for three months.

In 1872, the hair of the eyebrows disappeared, followed in the ensuing year by the eyelashes.

In June of 1876 the feet and legs commenced to swell, and the tumefaction, in the course of two months, involved, to a great degree, the entire lower extremities, the

scrotum, and, to some extent, the arms and hands. All the swollen parts were more or less anæsthetic, but this symptom was more marked on the left side. He was in the habit of pricking the skin with a needle to relieve the tension, and from the punctures thus produced there immediately flowed a copious, limpid, yellowish fluid, in quantity sufficient to form small streams. Under the influence of warm cataplasms, this discharge would continue during the night, and in the morning considerably diminish the size of the extremities. Often the amount discharged in twenty-four hours would equal two quarts. He commenced to grow hoarse, and the old cough and dyspnoea returned with severity. By October the swelling had decreased to a considerable extent, but there was soreness of the affected parts, cephalalgia, failure of the eyesight, and frequent fits of shivering. In December the swelling had disappeared from all places except the left foot and a portion of the fingers and hands. The parts formerly swollen then became hyperæsthetic, so that the slightest touch caused pain.

During the winter he steadily improved, and by the ensuing summer he was able to move around again. Only the left foot was swollen, but a more complete and increasing anæsthesia succeeded to the former condition of hyperæsthesia.

In the fall of 1877 he had a severe recurrence of his former symptoms, of a character, however, somewhat different from that noted before. A severe headache, especially located above the root of the nose, was followed with a double acute iritis, severe pain, and a copious discharge. The eyes felt as if they were squeezed backward in their orbits, and this pain, when no atropia was used, would be continuous day and night; it did not completely disappear for the next nine months. Some time after the onset of this attack, a painful tumor occurred below and behind the left ear, which in four days opened, and is still discharging.

About fourteen days after this, in November of 1877, there appeared on the sides of the left foot six small bluish spots, soon followed by sloughing and exposure of the

underlying bone. At the same time a bulla, as large as a twenty-cent-piece, appeared beneath the heel. This burst and exposed a dark red floor, which soon became black and fissured, the fissure extending to the os calcis. Further sloughing extended and deepened this, till an excavated ulcer was formed with the os calcis revealed at the bottom, discharging a stinking, ichorous, viscid matter. This communicated subsequently with other sores, which in a short time after healed. The ligaments were softened, almost disintegrated, and their connections so loose that the part of the foot in front of this sore seemed attached merely by the skin, and the os calcis so nearly disengaged that the nurse thought it would fall out, and tried to remove it, but found some posterior attachments remaining which held it in place.

At the present time (September, 1878), this bone has, on account of the weight of the foot resting upon it, been dislocated forwards, under and at the side of the other tarsal and metatarsal bones, so that the foot in front of the sore presents a very swollen and unshapely appearance. It is a mere insensitive bag of half-disintegrated bones and jelly-like muscles, between which the finger can be inserted to its whole length in different directions. The ulcer is oblong, three by two inches in extent, with callous undermined borders and a pallid slimy floor of muscles. An exposed articular facet of the astragalus has taken the place of the dislocated os calcis, which in its turn is moving forward, so that the ends of the tibia and fibula will soon appear at the bottom of the sore. The discharge is a thin limpid fluid, in quantity sufficient to drench the dressings, sheets, and mattress. As the foot is quite loosely attached, it can readily be carried up along the leg, a position it will assume whenever the foot is stretched and the toes pressed against anything.

At present he is almost without pain, owing possibly to the free discharge or to the periodicity of the disease. Walking is of course impossible, and he has not the strength to use crutches. Before the os calcis was dislocated he essayed to take a step, but the effort induced severe hemorrhage. The anæsthesia is complete to above the

ankle, a few patches on the inside of the foot excepted. In the remaining portions of the same leg there is partial anæsthesia, especially below the knee and on the peroneal side; also in corresponding parts of the other leg and over the hand and forearms, chiefly on the ulnar side. The sensation in the lower side of the face is also somewhat blunted.

The skin of the affected parts is dry and withered, peeling off in thin layers; on the left leg it is thicker, resembling dried fish-skin. About the sore in the foot it is considerably thickened. Sweat is secreted only on the forehead and trunk, especially the upper part of the latter.

The general appearance is that of wasting and emaciation, with muscular atrophy, especially about the anæsthetic surfaces. Sight is much impaired in both eyes, especially the left, where the pupil is obstructed by deposits upon the capsule of the lens, and the pupillary margin exhibits the fringes resulting from iritis. The eyes also are moister than normal, and the lids are glued together every morning. The lids and brows are destitute of hair. The upper lids are thin; and he complains of a tendency to ptosis, especially upon the left side, when the eyelids have been raised for any length of time. The lower lids have lost their fullness in part, but the tarsal border is closely applied to the globe, and the lids cover the eyes well. The left inner canthus is especially large; the lachrymal caruncles have almost gone. The left half of the mouth is partially paralyzed, the lips being relaxed, though they shut together fairly well. The mucous membranes of the mouth and pharynx are pale, but in other respects normal, though there is occasional dysphagia. The voice is clear and natural, when not affected with "a cold." Hearing is impaired on the left side. He states that his sense of taste is normal, though it is probably impaired. He likes some articles; dislikes sweet and salted food, and complains frequently of a bad taste in the mouth. The appetite is good; the bowels regular. The Schneiderian membrane often feels to him dry, though he thinks his sense of smell is unimpaired. The fingers of both hands are bent into the palms; they are very thin,

crooked, claw-like, and clubbed at the extremity; this latter appearance being due to the large, high-arched, rounded, flesh-colored, and inverted nails, which are almost continuous with the flesh, and are only recognizable as of different structure on close inspection. The nails of the toes, which have begun to fall off, are of similar appearance.

He has six or seven healthy children from 6 to 21 years old. Only one of his relatives, so far as he knows, is affected with a similar disease,—the brother of his mother's father.

If the patient's statements are correct regarding the development of his disease previous to 1873, when it was first brought under surveillance, it differs from those previously described by Professors Boeck and Daniellssen in this, that no pemphigoid eruption appeared until the later stages of the disease were attained.

Case II.—Peter Benonison Bistranden, born in 1843, in Løseten, Norway. His father's brother was leprous. Up to the year 1868 he was quite well. In 1869 he came to America on account of his health. Right leg anæsthetic. In 1876 he had acute iritis. In 1878 he died of anæsthetic leprosy.

III. TUBERCULAR FORM OF ELEPHANTIASIS GRÆCORUM.

Hjlmer Henriksen Dybaa, nativity in Vingraagen, Vernes, Tnondhjem Stift, Norway, 1849, came to Zumbrota, Goodhue Co., Minn., in 1869. He did not suffer from disease, to his knowledge, before 1873, when, after some illness, he discovered tubercles and sores in several places upon the extremities. Every year he has suffered from attacks of indisposition. In January, 1878, there were tubercles on the ulnar side of the right arm and along the peroneal muscles of the right leg, with anæsthesia of those parts. He had also some tubercles upon the forehead, which, he explains, bled freely when torn. The skin of the affected parts is rough and thickened, especially over the face; upon the legs and arms there is desquamation; small, brown, elevated, and slightly anæsthetic patches of morphæ nigra are disseminated over the

body, especially over the back. The mucous membranes of the nose and throat are affected; his voice is rough and hoarse; his nostrils obstructed by crusts. The conjunctivæ are injected. He describes the sensation of the flow of blood through the body as similar to the effect produced by the prick of needles or arrows. He suffers frequently from headache, heaviness, and drowsiness; can sleep at any time, day or night. Appetite and bowels normal.

He states that none of his relatives have been leprous. When 19 years of age he was engaged as a servant at the house of a leper—Eyvind Hansen Gulbrandsvik—in his native parish. Here he remained one year before coming to America, and he thinks he was then infected with the disease.

Case IV.—Hans Marcussen Dyrdal. Case observed and reported on by Professor Boeck, of Christiania (now deceased.) Steadily grew worse after that time, and died in 1878 of tubercular leprosy.—*Archives of Dermatology.*

INVERSION OF THE UTERUS.

BY H. P. C. WILSON, M.D., BALTIMORE, MARYLAND.

I desire to place upon the record the following case of inversion of the uterus as a tribute to the statistics of this important subject. This misplacement is rare, is often overlooked, when discovered is often neglected as beyond the power of the practitioner to rectify, and is sometimes included in the term "falling of the womb," which, under the ignorance of the past or inattention or thoughtlessness of the present, embraces all forms of malposition of the uterus.

Mrs. E. B. was nineteen years old in April, and married in December, 1871; was confined with her first child September 15, 1876, after five hours of natural labor. The child was living and healthy, but died three months after birth. She conceived again in February, 1877, two months after the death of her child, and was delivered of her second child November 7, 1877, after seven hours of natural labor. She nursed this child two months after delivery,

and then weaned him because of her great debility. She is of very fair complexion, lax muscular fibre, light hair and blue eyes.

Her physician was one of the most eminent practitioners of the eastern shore of Maryland. He told me that he never attended a more natural or easier labor. A few minutes after the child was born, he placed one hand on the abdomen, and made very moderate pressure on the uterus, while he tightened the cord gently with the other hand. The after-birth came away with a sudden splash, and a mass (which he took to be a procident uterus) protruded at the same moment about two inches from the vulva. He pushed it back at once. It re-entered the pelvis without any difficulty, and he saw, heard and thought no more of it.

I saw Mrs. B. for the first time May 3, 1878. She was then perfectly anæmic, and so feeble that she was obliged to be on the bed almost constantly. Her countenance was dejected, and she was spiritless and hopeless. Since the birth of her child (six months ago) she has been losing blood from the uterus constantly, and at times profusely, with dragging sensations about the hips, back, and lower abdomen; yet no vaginal examination had been made to discover the condition of the uterus, and she was sent to Baltimore on a visit to friends, with the expectation that change of scene, air, diet, and association would overcome these symptoms, and restore her to health and strength.

It was the day after she arrived that I first saw her, and a few minutes' conversation satisfied me that there was something radically wrong about the uterus, yet she stoutly resisted my making a vaginal examination, being convinced in her mind that there was nothing wrong in that quarter and insisting she was only weak; and it was not until I was about leaving the room with the announcement, "I had rather give up the case than prescribe without knowing what was the matter," that she very reluctantly consented to a digital examination only.

The index finger of the left hand, on entering the vagina, came in contact with a tumor, the lower end of which was just within the vulva, and the upper end appa-

rently projecting from a dilated os uteri by a neck or pedicle. The tumor was about two and three-fourths inches in its long diameter, and one and a half inches in its greatest transverse diameter. It was dense, and in every particular resembled a fibroid polypus coming from the cavity of the uterus. The pedicle was completely encircled by a dilated os, and in a moment after my finger was inserted into the vagina, I was on the point of announcing the presence of a pediculated fibroid tumor of the cavity of the uterus.

In a large experience in diseases of women for twenty-eight years, I had never before seen a case of inversion of the uterus (either acute or chronic), and so perfectly did the tumor before me simulate a fibroid that I was within an ace of being misled in my diagnosis, and of advising an operation for the removal of a fibroid. These mistakes have often been committed in similar cases, and the uterus removed by mistake; but they ought never to occur, when all the means of diagnosis are employed, and we are careful not to jump at conclusions.

The impression of a fibroid tumor had scarcely flashed across my mind, when it was replaced by the recollection that this lady was in perfect health up to the time of her last confinement, and had not had a well day since; so that her present condition must in some way be connected with that occasion. I began to feel by bi-palpitation for the body of the uterus. It could nowhere be found, either per rectum or per vaginam, and I decided at once that the tumor before me must be the uterus. To make my diagnosis certain, I placed my patient in Sims' left lateral position, introduced the speculum, and attempted to pass the sound by the side of the apparent tumor, through the dilated os, into the cavity of the uterus; but all my efforts failed. These digital and probing examinations settled me in my opinion, and I at once announced to the patient that she had inversion of the uterus, and would require an operation for its restoration. I desired her to write at once to her physician of my diagnosis, and to ask that he would be present at the operation.

The time for the return of her menses was at hand.

They were just coming on, and I advised a return to her home on the eastern shore, where, with her husband, child and friends, she would have less of the terrors of an operation hanging over her than by remaining in Baltimore. This she did, and came back to me, with her physician, four or five days after menstruation had ceased.

I may remark here in passing that I saw in this case what I have never seen before, and shall probably never see again—the process of menstruation going on from the surface of the uterus turned inside out. It gave the impression of a sweating of blood from the surface of an engorged mucous membrane, just like the sweating of perspiration from the surface of the skin over an excited capillary circulation.

On the 17th of May, thirteen days after I first saw her, and five days after menstruation had ceased, after she had been examined by her physician and my diagnosis verified, she was given a liberal drink of whisky and then chloroformed to complete relaxation, by Dr. Gardner. Lying on a table in the dorsal position, with thighs flexed on abdomen and legs flexed on thighs, one knee steadied by Dr. Bayley and the other by a nurse, having first pared closely my finger-nails, I proceeded to the reduction of the inversion.

One hand was passed completely into the vagina, and, the fundus uteri resting in its palm, the neck was encircled by the fingers, and steady upward pressure was made against that portion of the uterus which last emerged from the external os, while the other hand made steady counter-pressure above the pubis. The fingers were separated as far as possible from time to time to expand the encircling os, and allow the neck and body to return more easily. My plan was to return first the portion last inverted, until the fundus should disappear through the internal os.

At the end of half an hour of steady pressure, first with one hand and then with the other, I had succeeded in reduction to the point of bringing the lower end of the fundus within the external os, but all efforts to carry the body through the internal os were unavailing for some time longer. My fingers became so cramped, and my hands and

arms so powerless, that I was obliged to desist from time to time, and replace my hands with those of Dr. Gardner, who rendered the most valuable assistance in every step of this operation.

When I had reached that point in reduction where the fundus had entered the external os, and all efforts to advance it through the internal os were unavailing, I changed my plan of attack. I indented the fundus uteri with the index-finger of one hand, and made counter-pressure with the index-finger of the other hand, pressing firmly down into the internal os from above the pubis; but all efforts in this direction failed.

I then attempted by indenting first one horn of the uterus and then the other, while the same counter-pressure was made as above, but with no more success. I then returned to my first manipulation, of grasping the fundus with my hand, and the cervix with my fingers, and making steady pressure upward against steady pressure downward from above the pubis, and at the end of one hour and ten minutes from the commencement of the operation we were rewarded with complete reduction of the inverted uterus.

My fingers, hands and arms were almost powerless at the end of the operation, and I should have failed in the reduction at this first attempt, but for the aid given me by Dr. Gardner. The extent of this paralysis may be appreciated, when I state that I was unable to use my pen or perform any delicate manipulation for several days. I have never experienced such paralysis of the hand or arm in any previous operation within the pelvis.

The chloroform in this case was most skillfully administered. She took in all eight ounces, and was kept perfectly relaxed from beginning to end.

After the reduction the uterus was mopped out with Monsell's solution of sub-sulphate of iron and glycerine as an antiseptic. A pledget of cotton soaked in glycerine was placed in the vagina against the os, and the patient lifted into bed. She received no other treatment but plenty of milk and a liberal diet, was kept in bed four or five days, and had her uterus mopped out every other day

for ten days, first with the above solution of iron and glycerine, and then with Churchill's caustic iodine. At the end of this time she was allowed to return to her home with no other directions than to live liberally, drink plenty of milk, and wash out the vagina once daily with very hot water. She returned to see me in six weeks, looking well, healthy, happy, and full of life and gratitude.

Just before she left for home I noticed that the uterus was inclined to fall backward, and in her relaxed, anæmic state, with all its natural supports exhausted, and stretched to their fullest capacity, I deemed it best to insert a small Hodge's pessary, rather than run the risk of complete retroversion. This was done with great comfort to the patient.

As stated in the commencement of this paper, this is the first case of inversion of the uterus I have ever seen; and, to give some idea of how rarely it occurs, it was "observed at the Rotunda Hospital but once in upward of 190,800 deliveries," in a period of over thirty years. It most commonly occurs immediately after labor by pulling on the cord while the placenta is still attached to the walls of the uterus; and when it thus occurs, if recognized at once, it is very easily reduced by pressing it immediately back through the relaxed and dilated os uteri. Every day, month or year that it remains unreduced, its reduction becomes more difficult, and after great length of time often impossible.

Inversion of the uterus is sometimes produced immediately on expulsion of the child, where there has existed an unusually short funis, and this wrapped several times around the child's neck. The weight of the child under such circumstances may pull the fundus through the external os, by dragging on an insufficiently lengthy cord. It is as easily reduced as in the previous case, if discovered at once. Or inversion of the uterus may occur immediately after labor, where there has been no pulling on the cord, by the weight of an attached placenta dragging the uterus through the dilated os. It is as easily rectified in this as in the previous cases, if observed and undertaken at once.

Inversion of the uterus may also occur soon after labor, where the placenta has neither been pulled upon nor has its weight dragged the body of the uterus through the dilated os. It may take place in an anæmic woman of lax muscular fiber, where there are irregular and partial contractions of the body of the uterus, by which the semi-paralyzed seat of placental attachment is forced through the dilated os by other portions of the uterus contracting around it. Inversion occurring from these causes is not susceptible of as easy reduction as in the previous cases mentioned; but, if promptly undertaken, and, if necessary, calling in the aid of chloroform, there is usually no great difficulty in replacing the uterus.

To this class of cases belongs the very remarkable one recently reported by my friend Dr. Byrne, of Brooklyn, in the *New York Medical Journal* for October, 1878, and which he styles "unavoidable or spontaneous" inversion. In this case the hand carried into the cavity of the uterus immediately after the delivery of the placenta (which was found in the vagina) encountered a partially inverted fundus. This inversion was readily reduced by upward pressure with the fingers, but invariably returned on withdrawal of the hand; and, as he states there was "no active hemorrhage," in all probability the uterus was well contracted around this semi-paralyzed fundus (no doubt the recent seat of placental attachment), and thus the fundus was forced into "unavoidable inversion." Notwithstanding the skillful manipulation of this distinguished gynæcologist, he was unable to prevent this partial inversion from becoming a complete one. The entire body of the uterus passed through the cervix into the vagina, and all justifiable manipulation failed in its replacement till nine days after its occurrence.

This is an exception to the general rule that these cases are easily reduced if promptly discovered. I refer the reader to Dr. Byrne's paper for this interesting case of inversion as well as for the ingenious instrument invented to replace it.

Sometimes inversion of the uterus is produced by a fibroid tumor in its cavity dilating the cervical canal, and

then by its weight, dragging the body of the uterus through the external os into the vagina. The tumor should be removed and the reduction undertaken at once.

To this class of cases belongs the interesting one reported by Dr. T. Gaillard Thomas, in the October number of the *American Journal of Obstetrics* for 1878, in which a fibroid tumor was the cause of complete inversion of both uterus and vagina. Tumor, uterus and vagina appeared as one mass without the vulva. The woman had not been pregnant for thirteen years, and the condition in which he found her had existed for three or four years.

Another cause of inversion of the uterus is too great pressure through the abdominal walls on the fundus of a relaxed uterus. In this way the fundus may be indented, and very little irregular uterine contractions may be sufficient to carry on the work, till the fundus emerges through the external os.

In this, as in all other cases, inversion of the uterus is usually reduced with ease, if recognized early and undertaken at once. Those of months' and years' standing are the ones that give the practitioner so much trouble, and sometimes prove entirely beyond his control; and hence the importance of seeing, immediately after every labor, that the uterus is in proper place and condition.

Injudicious pulling on the funis by the *accoucheur* is the cause of more cases of inversion of the uterus than all other causes combined. It has been my habit in obstetrical practice, for many years, never to tighten the cord, unless an examination with the index-finger discovered the placenta in the vagina. Then there is no objection to pulling it away by the cord. But, if the placenta remains in the uterus after the cord has been tied and the child handed to the nurse, I immediately grease my hand and pass it into the uterus. If the placenta is detached, I turn it out with the hand, just as I would turn out a mass of clotted blood; if it is attached, I peel it off with the finger nails, turn it out, and manipulate the uterine cavity till contractions expel my hand. I thus secure firm contraction of the uterus, seldom encounter *post-partum* hemorrhage, and diminish the chances of septicæmia, by more

effectually closing the mouths of all open vessels, and more thoroughly cleansing the cavity of the uterus. I also secure the patient against inversion, and lessen many of the other dangers to which parturient women are liable.

I am aware that at least one of my most distinguished friends, Dr. Fordyce Barker (whose teachings I delight to treasure, and whose warnings should never go unheeded), cautions against the introduction of the hand into the cavity of the uterus after labor, and thinks it is fraught with the danger of lacerating the cervix; but I cannot see how the cervix uteri can escape laceration while the head and shoulders of a child are passing through it, and meet with it by the introduction of the hand immediately after delivery.

It must be a very large hand, and very rough manipulation, that could produce such a result immediately after expulsion of the child; and, when laceration has followed such a manual exploration, I would think it due rather to the egress of the child than the ingress of the hand.

I consider this use of the hand free from all danger. We gain thereby perfect intelligence of the condition of the cavity of the uterus, and secure, as by no other means, firm and permanent contraction of the same. We are cognizant at once of threatened inversion, threatened hemorrhage, threatened hour-glass contraction, adherent placenta, and any remaining *decidua*, and thus have the knowledge of any impending danger, as well as remedy, at our fingers' ends.

ELEMENTARY LESSONS IN ELECTRICITY.

By A. FLOYD DELAFIELD, A.B.

It is my intention in these papers to draw up an outline of the principles of electricity, as concise as clearness permits, which shall afford to those using electrical apparatus sufficient information to enable them to select such apparatus with judgment, and apply it to the best advantage. In this number I shall explain some of the terms employed

in the science, and describe a few experiments which illustrate the meaning and use of the terms. In subsequent numbers I shall describe the different forms of apparatus used for the production of electricity, and explain what results may be expected from each, giving particular attention to the selection and arrangement of batteries, and the different effects produced by differences in the number and size of their elements.

It is hoped that this series of articles will meet the wants of those who, while desiring exact and accurate information about electricity, cannot spare the time to study elaborate treatises.

I. Electricity is a form of energy. It cannot be defined, but is described by enumerating the phenomena it produces, such as attractions and repulsions, magnetic, chemical, physiological and other phenomena.

There are several ways of developing electricity.

a. By rubbing dissimilar substances together.

b. By placing dissimilar substances in contact or in a liquid.

c. By warming or cooling the junction of two dissimilar substances.

d. By changes in a system of magnets and wires, either in the strength of the magnets, or in the relative position of the parts of the system.

Besides these methods there are others not practically used.

The terms frictional electricity, galvanic electricity, magneto-electricity, etc., often employed, refer to electricity produced in different ways, and not to different kinds of electricity. We know of but one kind of electricity, whatever means may be employed to produce it.

2. A body having more or less electricity than the earth near it, is said to be electrified. If it has more than the earth, we say it is positively electrified, if less, negatively.

The degree of electrification of a body above or below the earth near it, irrespective of the size or nature of the body, is called its potential. It is analogous to temperature, which is also an idea independent of mass.

The course of differences of potential is called electro-

motive force. The unit or standard of electromotive force is called a volt, and is about equal to the electromotive force produced by any form of sulphate of copper battery. We say, for instance, the electromotive force of a certain battery is two volts, just as we should say the weight of an apple is six ounces, or the capacity of a tumbler is half a pint.

In any electrified body there is a certain quantity of electricity which can be measured.

The quantity of electricity which can by any means be gotten into a body is limited by its capacity, which depends on its surface—a hollow ball having the same capacity as a solid one.

The capacity of a body is affected by neighboring bodies.

3. If two bodies of different potentials be connected by a wire, the excess of electricity above the mean of the two passes from the body of higher to that of lower potential, and we say, a current of electricity passes from the first to the second.

When we speak of the strength of a current, we mean the quantity of electricity that passes per second.

It is found that the nature and size of the wire joining the two bodies of different potential, affect the strength of the current.

The degree to which the wire opposes the passage of the current is called its resistance, and is independent of the strength of the current.

Bodies of small resistance are called conductors. Those of very great resistance are called insulators.

The unit or standard of resistance is called an ohm, and is practically a certain piece of wire kept at Kew in London, exact copies of which have been sent all over the world, and are used for measuring the resistance of coils of wire, and for other purposes.

In measuring resistances we use a set of wires of one, two, etc., ohms resistance, just as in weighing we use a set of weights of one, two, etc., pounds or ounces.

4. If two bodies at different potentials be connected by a substance having a very high resistance, such as air, glass or india rubber, the potentials of the two bodies do

not become equal ; a certain quantity of electricity passes into the air or glass, or other insulator, and then the whole system attains a condition of equilibrium.

5. Electricity in equilibrium is statical electricity.

Electricity in motion is dynamical electricity.

A mass fixed at any height above the surface of the earth possesses energy similar to statical electricity.

A mass falling from such a height possesses energy similar to dynamical electricity.

II. Methods of producing electricity.

In treating of the methods of producing electricity, it is convenient to speak of friction, although for the production of electricity for practical purposes, this method is never, or at least seldom, used. There are certain very important experiments, however, which are most conveniently made with frictional apparatus. In making these, dry weather must be chosen, as a damp atmosphere is a conductor of electricity, and in such an atmosphere no great difference of potentials can be maintained.

The simplest form of frictional machine consists of a piece of glass, hard rubber, or sealing wax, and a piece of silk or a catskin. On rubbing one of the first mentioned bodies with one of the second, electricity is developed in both of them. The potential of one is raised and that of the other lowered.

If the electrified glass or other substance be held near some light body, this will be attracted to it, but as soon as it has touched the glass or other electrified body, it will be repelled.

This simple experiment is the basis of the whole science of electricity. It is most convenient to make it in the following way :

Provide three glass standards a few inches high, bent in the shape of a small Roman f, and fixed in wooden or metal bases. Let us call them numbers 1, 2 and 3.

Now from 1 and 2 suspend single small balls of pith by fine silk threads, so that they hang free, and from 3 suspend in the same way two balls so that they touch each other. Let us also have a rod or tube of glass a few inches long, a stick of ordinary sealing wax, and a piece

of silk, such as a handkerchief. We can now make the following experiments:

1. Rub the glass or sealing-wax briskly with the silk handkerchief, then hold it to ball No. 1. The ball is attracted, but as soon as it has touched the rod, it is repelled.

2. Rub the rod again, and hold it then to the pair of balls No. 3. They behave as did the single ball, but on allowing them to touch the rubbed rod and then removing this, they will come to rest, not touching each other, however, but standing off from one another.

3. Bring 1 and 2 near each other. Touch No. 1 with the glass rod, after this has been rubbed, and touch No. 2 with the rubbed sealing-wax. The two balls will now attract one another, but if they be allowed to touch, they fall apart again, and lose all sign of electrification.

From these experiments we see that:—

1. An electrified substance attracts a light, non-electrified body.

2. An electrified substance repels a body that has touched it.

3. A body touched by rubbed glass or sealing-wax repels one touched by the same substance, and attracts one touched by the other substance.

It is by carefully making such experiments as these that the following laws have been demonstrated:

1. On rubbing glass and silk together, the potential of the glass is raised and that of the silk lowered.

2. On rubbing sealing-wax and silk together, the potential of the sealing-wax is lowered and that of the silk raised.

We know of no reason for this, any more than why electricity should be produced at all in either case. We can only say, such are the facts.

3. On bringing an electrified body in contact with one of a different potential, a portion of the electricity passes to the body of lower potential. It is for this reason that we can electrify the suspended balls by touching them with the rubbed rods of glass and sealing-wax. This also explains the fact that the two balls touched, one by glass

of raised potential, and the other by sealing-wax of lowered potential, lose all sign of electrification on touching each other. The potential of one has been raised, for the glass touched it, electricity went into it—that of the other lowered, for electricity passed from it to the sealing-wax. Now, on bringing the balls together, supposing them to be of one size, all the electricity passes from the ball of higher potential to that of lower potential, and they are thus brought to the potential of the earth; that is, they are both at the potential zero—are not electrified at all.

4. Two substances, the potential of both of which is higher or lower than that of the earth, repel each other; if the potential of one be higher, and that of the other lower than that of the earth, they attract each other.

Editorial.

MEDICAL ASSOCIATIONS.

The season for State and National assemblies of medical men is approaching, and we shall look for lively discussions on the subject of malignant epidemics which, in Asia and America, have of late proved so destructive of life.

The State Association, which meets the third Wednesday in April, at Rome, will, doubtless, have pretty full attendance. Those familiar with the nature and peculiarities of epidemics, particularly those which destroy our own people, will, we hope, present at this meeting facts for the consideration of the profession, practical and useful. Each member receives information from the labors of others, and is due his mite at any rate to the general cause of advancement in practical knowledge. If all go solely to learn from others there will be no one to learn from. These meetings are intended to receive contributions, and every member can afford something. It is not

particularly important that he present a learned theoretical dissertation. A fact, one fact, established beyond dispute, by thorough investigation and experiment, adds more to the advancement of medical science than a dozen fancy theoretic papers, and will be more highly appreciated by those possessing judgment and practical sense.

The American Medical Association, which meets in Atlanta on the 6th of May, will give to this portion of the South a treat with which we have not before been favored. Many who have not heretofore had an opportunity to be present at and contribute through this medium will, doubtless, be present on this occasion. The most active, learned and useful American medical men often attend the meetings of this association, and those living near, who do not wish to tax themselves with the labor and loss of time to contribute, should not fail to witness the discussions and deliberations of the meeting.

ATLANTA MEDICAL COLLEGE.

This institution has now nearly passed through its twenty-second session. The number of students in attendance the present course is over one hundred and thirty, as is shown by the *bona-fide* matriculates on the Dean's book. Of this number, thirty-five to forty have made application for the degree. The class, one of the most attentive and orderly we have seen, bids fair to afford some valuable practitioners.

The commencement exercises will take place on Tuesday night, the fourth of March, before a public audience, in DeGives Opera House.

The term, which for a number of years consisted of barely four months, has been lengthened to a period of more than four and a half months. Commencing the fifteenth of November, the course does not conclude till the fourth of the following March. The half month in November is not, as is sometimes found, a preparatory, introductory or catch-student course of two weeks, but is a *bona-fide* part of the regular term, and published in the announcement as such.

This addition to the length of the course of lectures is necessary to the more perfect and complete teaching in each branch, and still further lengthening would not be amiss in several departments.

BIBLIOGRAPHICAL.

DIPHTHERIA: Its nature and treatment, varieties and local expressions, By Morell Mackenzie, M.D., London, Senior Physician to the Hospital for diseases of the throat and chest, etc., etc. Philadelphia: LINDSAY & BLAKISTON. 1879.

This monograph of a hundred pages gives the author's definition and history of the disease, and his opinion of its etiology, symptoms, diagnosis, pathology, prognosis and treatment.

While nothing new is claimed in the means proposed for the cure of this fearful malady, the various general and local remedies that have been used from time to time, are mentioned, and the probable benefit to be expected from them.

The disease is one about which physicians feel great concern, and seek the experience of others in its treatment. The book will, therefore, be read with interest by the general practitioner.

A PRACTICAL MANUAL of the diseases of children, with a formulary. By Edward Ellis, M.D., late senior physician to the Victoria Hospital for sick children, etc., etc. Third edition. New York: WILLIAM Wood & Co., 27 Great Jones street. 1879.

This is the second issue of "Wood's library of Standard Medical Authors."

The book of two hundred and ten pages gives general rules for the dietic management of children, and describes diseases to which they are subject, with the treatment necessary for their cure. The work will be found a valuable addition to the library of physicians.

We are in receipt of two new Medical Journals, which we welcome to our exchange list: The *St. Louis Courier of Medicine and Collateral Sciences*; and the *Archives of Medicine*, published in Baltimore.

EXCERPTA.

DAMIANA AS A NERVE TONIC.—My views on damiana as a sexual tonic are known to a very large number of the members of the medical profession. Further experience has strengthened the high appreciation I have expressed of its value in sexual debility, and given me, I think, some new ideas as to its physiological action and position as a remedial agent. It is pre-eminently a nerve tonic, impressing the brain and nerve centers very much in the same manner that strychnia does. While, however, void of poisonous properties, it excites nerve cell nutrition, and enables the nerve cell to assimilate its proper pabulum from the blood.

For the medulla oblongata and the medulla spinalis, it has an especial affinity. The motor nerves seem more impressed by its influence than are those of sensation. Hence I inferred that it would prove valuable in paralysis. Opportunities offering, I tested the accuracy of this inference in two cases—one hemiplegic, the other paraplegic. In both, damiana proved of unquestionable efficacy; the advantage was as unequivocal as I ever witnessed from the use of strychnia and ergot.

If my theory of its *modus operandi*—that it acted as an invigorator of the primordial nerve cell—be correct, it is easy to understand its true place in the treatment of certain forms of paralysis, as well as other nerve lesions in which deficient cell nutrition plays an important part. Damiana, by its direct action as a nerve tonic, by removing the morbid condition or stimulating the cells in inactive conditions, supplies a great want in therapeutics.

If impotency has accrued in the male from inability to secure the necessary erection to convey the seminal fluid into the female, and to produce in her the very important yet not absolutely essential orgasm for impregnation, this remedy, in the absence of organic or structural change, will almost invariably overcome the difficulty. It accomplishes all, and even more effectually, the results attained

by combinations of iron, strychnia, ergot and cantharides.

In several cases of nervous exhaustion, I have found the organismal hypophosphites to give rather negative results, on account of the nerve cell being unable to imbibe its proper pabulum. In such cases I have used damiana alone with evident benefit; but the two agents together are almost magical in their effects.

I have recently used these two agents in combination with extract of malt, and the result has exceeded my fondest expectations in several cases of mal-nutrition and general cachexia. I have also noticed that the capacity of both physical and intellectual labor is increased by the use of this combination.

Recently I used damiana in a case of obstinate constipation, and found the trouble entirely removed; and this after having used a multitude of remedies. Whether the result in this case was a mere coincidence, or will again occur, I shall determine by future trials. I believe damiana can be advantageously used in all cases in which strychnia is now employed.

The preparation I have used is the fluid extract, either prepared by myself by cold repercolation, or by Dr. F. O. St. Clair. I abstain from heat in making it, as high temperature is as fatal to damiana as it is to wild cherry. May not the rise of heat in the manufacture explain the reason why so much of the fluid extracts found in the market is utterly worthless, and has brought so much reproach, to be shared by the properly prepared and valuable article?

Damiana, like ergot, isolated phosphorus compounds, dophyllin and other valuable agents, has had its good name traduced, and at it has been hurled the usual remedy of the weak ridicule; but truth, as it always will, has triumphed, and this agent is, no doubt, destined to an official position in our pharmacopœia.—*C. G. Polk, in Virginia Medical Monthly.*

THE APPLICATION OF PRESSURE IN TREATMENT OF UTERINE DISEASES.—[In our September number we reprinted a paper by Prof. V. H. Taliaferro, of Atlanta, Ga., on the above subject. We subsequently tried the treatment as

indicated, but the wool produced too much irritation, and treatment had to be suspended. We wrote to the Doctor, stating the case, and that portion of his reply relating to the tampon we take the liberty of presenting to our readers.—*Ohio Medical Record.*]

"I would advise when you have an irritable canal, and, indeed, in the beginning of treatment in all cases, to use cotton instead of wool. Wool is more irritating than cotton, and when you have a vagina at all irritable, cotton should be used. I have a patient now under treatment who always complains of wool, and in whom I substituted the cotton entirely. And even with the cotton, in these cases, care must be used and the effects watched until the vagina becomes thoroughly tolerant of the foreign substance. I sometimes suspend the treatment for two or three days, directing the patient to use hot water, with a little salt, as a vaginal douche twice or thrice daily during the time. This should be used while the patient is on her back, or, if "squatting," as they usually prefer, the labia should be grasped around the syringe nozzle and the vagina pumped full to distension, and then emptied—the process again and again repeated during the entire syringing. In this way only, in the sitting or stooping position, is the entire vagina with its vault douched with the water. After two or three days' rest to the vagina, and use of the water, the tampon is resumed, care being used to pack only the upper portion of the vagina at first, and then gradually inure the irritable canal to the foreign substance, and after awhile effectually destroy the irritable condition of the canal. A chronic irritability of the vaginal canal, and often a chronic inflammation, complicate the uterine trouble, and in such complications they must be removed, or at least greatly modified, before we can use the tampon effectively to the uterus. It sometimes occurs in healthy vaginae, during the course of tamponing, that an occasional abrasion occurs. For these I never suspend treatment, but use a little cerate or iodoform ointment on a soft cloth and the cotton over it.

"In reference to the use of cotton in place of wool, I have become convinced, since the publication of my paper,

that cotton is less irritating and a greater degree of pressure can be made with it. I am in the habit of using cotton to the upper two-thirds of the canal, and filling out with wool when I wish to make the greatest amount of pressure. The cotton should be prepared by boiling in soda water, and then washing thoroughly and carding into bats. The last water in which it is washed should contain a little carbolic acid. The first pledgets of cotton applied to the vaginal roof should contain, to saturation, glycerine of pure quality."

SUGGESTION FOR SLEEPLESSNESS.—Many persons troubled with insomnia also suffer from cold feet. An English writer suggests that the feet be dipped in cold water for a brief period; often just to immerse them, and no more, is sufficient; and then they should be rubbed with a pair of hair flesh-gloves, or a rough Turkish towel, till they glow, immediately before getting into bed. After this, a hot-water bottle will be successful enough in maintaining the temperature of the feet, though without this preliminary, it is impotent to do so. Disagreeable as the plan at first sight may appear, it is efficient; and those who have once fairly tried it continue it, and find that they have put an end to their bad nights and cold feet. Pills, potions, lozenges, "night-caps," all narcotics, fail to enable the sufferer to woo sleep successfully; get rid of the cold feet, and then sleep will come of itself.—*Medical and Surgical Reporter*.

SYPHILITIC MILKMEN.—An English writer, Mr. George Gaskoin, has lately directed attention to the possible infection of milk through that very common form of secondary syphilis, psoriasis palmaria, on the hands of the men engaged in milking. He remarks: "Although the subject is of an unpleasant character, I think it would be possible to insist on a great circumspection in the choice of men who have this duty to perform. If the 'neat-handed Philis' is to be discarded, which I cannot but think of with regret, we ought to be very particular in the class of men employed. Thus, for instance, it is obvious that discharged soldiers and seamen, in whom the probability is not small

that they may have had syphilis, are not the people we should make choice of for milking our cows; but, in short, whoever has had this complaint in any degree, or at any period of his existence, is unsuited for so delicate a duty." This warning is very applicable to the dairies around Philadelphia and New York, where the "milk maids" are usually boys and men.

GERMAN TREATMENT OF CROUP AND DIPHTHERIA.—The following treatment of croup and diphtheria is advocated by Dr. Taube, in the *Deutsche Zeitschrift für Prakt. Medicin*, September, 1878. An ordinary inhaler is to be taken, full of water, into which is to be put each time it is used fifteen drops of the oil of turpentine. The child should be wrapped in a sheet and placed on the mother's lap, while another person holds the apparatus for eight or ten minutes, about three inches from its mouth. It is as well to grease the child's face and to protect the eyes with a cloth. At first the inhalation should be practiced every hour, day and night, the favorable result of which will soon be apparent. With regard to the carbolic acid injection, it should be made into the submucous tissue, half the contents of an ordinary hypodermic syringe, containing a weak solution of the acid (3 to 1000) being injected two or three times a day into the tonsils—subject to certain modifications, as the case may require. Taube would recommend the following plan: 1. Hourly inhalations of the oil of turpentine throughout the day and night. 2. Injection of carbolic acid two or three times a day. 3. From one to two teaspoonfuls of Port wine of Madeira, to be given every hour; cold compress to the neck; two or three times a day a warm bath with the cold affusion; and small doses of the infusion of digitalis, to which a little benzoic acid is added. The nourishment should consist of eggs and milk only. Constipation is to be met with linseed oil, and for the separation of the false membrane, sulphate of copper, or tracheotomy, with turpentine inhalations through and above the canula.—*Med. and Surg. Reporter.*

OBSTINATE VOMITING CURED BY MEAT-PANCREAS INJECTIONS.—In the case of a woman, forty-eight years of age, suffering from an abdominal aneurism, the vomiting was so persistent that the patient was unable to retain even a mouthful of water on her stomach. Dr. During, of Westhofen, under whose care she was, finally had recourse to Leube's nutritive clysters. Every day 1½ oz. of meat and ½ oz. of pancreas were chopped up very fine and mixed with warm water, until the compound had the consistency of a thin pap; half of this was injected into the rectum in the morning, and the other half in the evening, the clyster being retained each time for from eight to ten hours. The nutrition of the patient soon began to show signs of a slow improvement. After three weeks she was able to take a little milk by the mouth, but as the quantity thus taken did not exceed four tablespoonfuls per diem for several weeks, the progressive improvement could only be ascribed to the injections. After ten weeks the patient was so far improved that the clysters were discontinued. The gradual improvement in stomach digestion was accompanied by a progressive diminution in the size of the tumor.—*Med. Chir. Rundschau*.—*Med. Record*.

CONGENITAL DEFORMITY OF THE SUPERIOR EXTREMITY.—In the Vienna section of the Association of Physicians of Lower Austria, F. V! Becker presented two cases of congenital arrest of development. The patients, brother and sister, belong to a poor family. Father and mother are healthy; three children have died, and presented no abnormal development. Of the living children, one of them (a girl) is normally constituted; the other three are deformed, as described below:

The boy is well developed, but delicate, and badly nourished. Both superior extremities are very much shortened. On the left side this shortening is due to a total absence of the bones of the forearm. On the right side it is due to shortening of the humerus, and to the fact that radius and ulna are merged in one bone of about one-third of the normal length. The shoulder joint is defective both in development and in width. On the left side the elbow

the extensor digiti minimi, the upper one of which is inserted into the first phalanx of the index finger, and the lower one into the dorsal aponeurosis of the middle finger. Beneath these muscles, on the other side of the foramen, there are three other muscles, which have no counterpart in normal anatomy. The muscles of the thumb are wanting, and also the interosseus externus of the index finger.

As in other cases in which the radius is wanting, there were other deformities in other parts of the body. Notably, an incomplete development of the septum ventriculorum cordis; a slit in the left upper lip; an absence of the thumb of the right hand.—*St. Louis Courier of Medicine.*

CYSTICERCI IN THE BRAIN DIAGNOSTICATED DURING LIFE.

A case of this character is recorded by Dr. Joseph Pollak in the *Wiener Med. Presse*, No. 47, 1878. The patient was a boy eight years of age. Examination of the pulse, temperature, thoracic and abdominal viscera failed to reveal anything abnormal. The boy complained of excruciating headache, and his piercing cries were loud enough to be heard at quite a distance. Very shortly after his first visit the attendant was recalled, when he found the pupils dilated, the urine and feces passed involuntarily, the abdomen distended; headache was still severe. Every few hours, attacks of an epileptiform nature recurred, while in the intervals there was a remarkable absence of all these symptoms. At one of his visits just after prescribing a cathartic, he had occasion to examine the stools, where he found portions of a tænia. The presence of this, in connection with the other symptoms, at once aroused the suspicion that he had here a case of entozoa origin. At his next visit he found the patient comatose, and on examination of his pupils found, to his surprise, what proved on a closer examination, to be a cysticercus in the anterior chamber. He at once pronounced the case one of cysticercus of the brain. The patient died shortly afterward, and the diagnosis was fully verified.

ATLANTA Medical and Surgical Journal.

VOL. XVI.]

MARCH—1879.

[No. 12

Original Communications.

THE HUMAN EYE.

By H. F. SCOTT, M.D., ATLANTA, GA.

Read before the Academy of Medicine.

Having been appointed by President Todd, to read an Essay before the Academy, you will pardon my selecting a subject appertaining to my speciality of diseases of the eye.

You will doubtless agree with me, when I say that the grandest of all optical instruments is the human eye.

The telescope, which sweeps the sidereal heavens with a glance, and resolves far distant nebulae in the twinkling of an eye, is a marvelous product of human ingenuity.

The microscope, which magnifies a razor's edge to a finger's breadth, and reveals the minutest organisms of animal and vegetable life, is scarcely less wonderful; but the human eye exhibits a higher mechanism than either or both of these notable contrivances of scientific skill.

In discussing briefly the eye, its use and abuse, you will pardon us for prefacing our remarks with a bare outline of the anatomy and physiology of this most important organ.

The eye is a globe, spheroidal in shape, consisting of the sclerotic and choroid coats, of the cornea, which in construction closely resembles a watch crystal, and of the iris, a curious network of muscular fibres, interlaced with

blood-vessels and nervous filaments, perforated by a pupil through which light is admitted into the inner chamber of the eye.

In addition, it has the aqueous humor, crystalline lens and the vitreous body, which serve as so many refracting media, and besides impart shape and consistency to the eye.

The eye, as thus constituted, is essentially a photographic *camera-obscura*.

In the rear, however, of the chamber of the eye, we meet with that remarkable expansion of the optic nerve, called the retina; its office is to receive the impressions of external objects, and by means of its conducting apparatus, to transmit them to the sensorium where they become objects of perception.

We are greatly indebted to Schulze for our present knowledge of the retina.

According to his analysis, it is composed of ten distinct layers, all contributing in a greater or lesser measure to the purposes of vision.

It remains to be stated that the eye is sustained and operated by six muscles, the four recti-muscles—superior, inferior, internal and external, and the two oblique—the superior and inferior.

It need hardly be said, that it is lodged in well-cushioned sockets, and yet further protected from injury by bony processes, by the eyelids and by glands whose secretions lubricate and cleanse the eye.

For the purposes of distinct vision, the crystalline lens is of transcendent importance.

By its refracting power it forms a sharp, well defined image of the external object upon the retina, when otherwise the image would be blurred and greatly confused.

The structure of the lens is not homogeneous, but it decreases in density from the centre to the circumference.

In the living eye it is perfectly pellucid, but shortly after death, or when subjected to the action of heat or alcohol, it becomes opaque and impervious to the rays of light.

Upon this lens, also, depends the power of accommoda-

tion; when an object is brought near the eye, its convexity is increased by the action of the fibres of the ciliary muscle, and the object is clearly perceived at a short distance.

This faculty of accommodation or adjustment is marvelous beyond expression. With equal facility it catches the light of Sirius several billions of miles from the earth, and perceives with distinctness the form and color of the violet at a distance of six inches.

Without wearying you further with dry anatomical details, suffer us to speak at greater length of the uses of the eye. Much has been sung and written of the triumphs of blindness. The world is familiar with the story of the blind old bard of Scio's rocky isle, and of him not less gifted who sung of man's first disobedience and the fruit of that forbidden tree whose mortal taste brought death into the world with all our woe.

Most of you have heard of Sanderson, the blind mathematician, and of Huber, the Swiss naturalist, who taught us the husbandry of bees.

Not a few have read of Nydia, the blind flower-girl of Pompeii, who guided Glaucus, the Athenian, in perfect safety through the storm of fire, ashes and scoræ with which Vesuvius entombed the queenly city for a thousand years; and of that greatest prodigy, Laura Brigman, who, though blind and deaf, acquired a competent knowledge of history, geography and arithmetic by the tips of her fingers.

We see in these instances an illustration of that law of compensation by which a merciful Providence very nearly equalizes the varied lots and conditions of men.

Let us not too hastily conclude that the eye is of secondary importance—after all, it is the chief inlet of knowledge of the external world; in this respect it far exceeds in value all the other senses.

If the human skull be indeed the dome of thought and palace of the soul, much more is the eye the window through which the mind itself looks out upon the material universe and becomes cognizant of its beauty and its glory—differing in its shade through all the gamut of colors, from the deep blue eye of an Annie Laurie to the

languishing dark eye of an Andalusian maid, which is beyond all else the truest exponent of the character.

No one who has read Milton's exquisite sonnet on his own blindness, or his yet sublimer apostrophe to Light in the earlier cantos of "Paradise Lost" can fail to perceive that if the eye is once destroyed, creation, as to form, coloring and the thousand other charms, becomes a universal blank.

It may be well to say, in speaking of the uses of the eye, that we are morally responsible, in a measure, for what we see or fail to see—there is more in our subjective states than we often dream of.

Shakespeare truthfully says that the lover sees Helen's beauty in a brow of Egypt, and you all remember that Titania deemed Bottom a paragon of beauty, despite his assenine ears.

Very much of our success in business or professional pursuits will depend upon the use we make of our eyes. Many things are best learned from observation. Quick perception, associated with a habit of close, unfaltering attention, is the great secret of genius itself. Parents therefore owe it to themselves, but far more to their children, to care for the eyes. Hundreds of dollars, however, are expended on the teeth, to where one dollar is expended in securing the professional services of an oculist. Much of this neglect is due to popular ignorance, but is none the less damaging to the child.

Some eye diseases are remarkably insidious in their approaches, and if not promptly arrested, in a very little while they become incurable. Prominent among these is Glaucoma. In its acute form there is high inflammatory action, attended with severe pain; yet, in these cases even, an expectant treatment is often adopted which merely soothes and palliates, or, at the most, postpones the inevitable result.

In the chronic form of glaucoma the danger is seldom appreciated, and this fact, coupled with the dread of a surgical operation, occasions delay that is not less fatal to the vision of the affected eye. A timely resort to the simple and almost uniformly successful operation of Iri-

dectomy, will at least preserve what vision may have survived the ravages of the disease.

You will pardon the seeming egotism of the remark when I say that I myself have witnessed numbers of such operations by Arlt at his clinics in Vienna, and in but few instances was there a failure, and then but a partial failure. In all cases everything depends on the prompt application of the knife. A very high authority, indeed, says that in estimating available time in glaucoma, hours must be reckoned as days, and in the fulminating form, minutes must be measured as hours.

Another disease, which nearly always develops itself in childhood, is less insidious and less hurtful than glaucoma, but yet demands the immediate attention of the professional oculist. We refer to Strabismus, or squint, both convergent and divergent. In not a few cases the disease is the result of local paralysis, and in some of these cases, the usual severance of the muscle supposed to be at fault is a grave mistake; it inflicts needless suffering without producing parallelism.

In such, a constitutional treatment is indicated and is very often beneficial, yet, in the majority of instances the atropine treatment, accompanied by the use of suitable glasses, will be the most reliable remedy. Of course we recognize the necessity for the knife in the larger number of cases of strabismus. Our special object, however, in this connection, is to insist that in every case a skilled oculist be consulted before the vicious habit entails changes which are beyond the hope of remedy.

Another form of eye disease demands prompt attention. We allude to Sympathetic Ophthalmia. Any injury done to one eye, especially if it involves the ciliary region, will be liable to develop sympathetic inflammation of a peculiarly obstinate and destructive character in the uninjured eye. In such an event, the *immediate enucleation of the injured eye* is imperatively called for. This affection sometimes follows an operation for the extraction of cataract; but it holds likewise in regard to all mechanical injuries.

In these cases (and they are constantly occurring) the

patient should seek the counsel of an oculist, and he, if an expert, will extirpate, when needful, the offending organ and so prevent a total loss of vision.

If deemed important for the purposes of this essay. I might speak in detail of Pterygium, conjunctivitis, cataract, etc., which are well known and comparatively well understood. Their presence is readily detected, and the needed treatment is seldom so urgent as in the forms of disease just mentioned.

The remark which we made at the outset, that the eye was the grandest of all optical instruments, was strictly true in the sense there intended, but in another sense it needs material qualification.

Statistics show that there is only about one person in every thousand that needs the restraint and regimen of a lunatic asylum, but deQuincey was not wide of the mark when he said that not more than one person in sixty is perfectly sane.

So, while there are comparatively few who require the professional services of an oculist, yet there is only a small percentage of our population whose vision is perfect. A large majority of those who compose this or any similar assemblage are really laboring under some infirmity of vision.

The ideal eye, technically called emmetropic, is one of the rarest bestowments of the Great Creator; much the larger portion have either myopic or hypermetropic eyes—in popular parlance, they are either far-sighted or short-sighted.

The deviation from the normal standard may be but slight, and the individual may remain unconscious of the defect for years, but it nevertheless exists, and is the source of more or less discomfort and incapacity.

The ophthalmoscope in the hands of a skillful oculist very often reveals defects of this sort that had not been previously suspected.

In many cases these organic defects are congenital and in other cases they are the outcome of long-continued functional disturbances. In all cases, however, they may be benefited, if not fully remedied, by proper treatment or the use of suitable glasses.

It will not be out of place here to notice a few of the causes of those diseases of the eye which are not strictly congenital. One of the most frequent of these causes, as will readily occur to all of you, is habitually over-taxing the eye. The eye, like every other organ, needs intervals of rest; it is not more certain that Assyrian or Egyptian sun will develop ophthalmia of a malignant type, than it is that reading by an insufficient light, whether natural or artificial, or excessive reading by an adequate light, congests the organs of vision.

The old maxim, *ubi irritus ibi fluxus*, applies to this as well as to every other inflammatory action.

A pleasant thing, says an inspired writer, it is for the eye to see the sun, but the softest sunlight of a May morning is stimulating to the optic nerve, and if too long continued, will irritate and inflame its delicate tissues. This injury is vastly intensified by the atmosphere of a crowded hall, where "bright lamps shine o'er fair women and brave men, and soft eyes speak love to eyes that speak again."

We would lay no needless restraint upon the innocent and healthful recreation of the young, but even a blind man can see that midnight revelry in a poisoned atmosphere, amidst the flashing of wine cups and the glare of gaslight, is doing no little to produce premature blindness and even premature death. The Norman Curfew, hated as it was by our Saxon ancestors, would in these respects be a blessing to this age and country.

Another grave abuse of the eye is the habitual reading of books and magazines printed in an exceedingly small type; some of the cheap editions of our favorite poets and novelists are both a typographical swindle and a medical abomination; if they had been studiously contrived to bring about one or another of the diseases known to the professional oculist, they could not have been more successful.

Our sanitary boards, who are devising ways and means to stay the march of pestilence, ought to bestow at least a passing notice upon this widely prevalent evil. And those who have in charge our public libraries should dis-

countenance these publications, which, under the pretext of cheap literature, are sowing broadcast the seeds of eye disease amongst the youth of both sexes.

It may be stated in general terms, that any influence which impairs the bodily health, thereby lowering the vitality of the system, is damaging in a greater or less degree to the eye.

In harmony with this proposition is the fact that various forms of eye disease become almost epidemical in our crowded school-rooms and college halls. Other causes probably increase this tendency, yet much of it may be fairly attributed to imperfect ventilation and indigestion, caused by the sedentary habits of the pupils.

Our boards of education, and all who have charge of our public and private schools, need to be especially watchful against all these sources of injury to the delicate tissues of the eye.

We cannot too earnestly admonish all against any sort of reliance upon the various nostrums that are placarded at street corners and announced through the columns of the newspapers. In every case of eye disease, the patient should seek the counsel of a competent physician—a professional oculist if one is within reach. This advice, if followed, will save time and money, and perhaps the eye.

Avoid itinerant opticians, who peddle Scotch-pebble glasses, and who have no knowledge of the eye and no understanding of its needs. It requires as much professional skill to rightly adjust glasses to the eye as to remove a cataract. Badly adjusted, glasses are positively harmful, while well-adjusted, they are helpful to imperfect vision, and contribute greatly to the patient's comfort and capacity for business.

In speaking, a little while ago, of the treatment of certain forms of strabismus, I alluded to the *atropine treatment*, and in bringing these remarks to a close, I can not forbear saying more of this, the most important remedy in the armamentarium of the oculist, without the knowledge of which we would be like a ship at sea without a compass.

In the form of a solution of the *neutral sulphate* of the

strength of from $\frac{1}{2}$ a grain to 4 grains to an ounce of distilled water, it is applicable in almost every affection of the eyeball, those alone in which there is a preternatural dilatation of the pupil being excepted. This remedy should be known and appreciated by every physician, for by its use we are enabled to paralyze for a time both the sphincter of the pupil and the ciliary muscle, thus placing the eye in a state of absolute repose.

The science of ophthalmology is still in its infancy. It has been said, indeed, that professional oculists were known amongst the Greeks and Romans, and that even the Egyptians were familiar with the leading principles of ophthalmology. How much of this is simply conjectural, if not truly fanciful, I shall not take time to discuss. Certain it is, that if the ancients possessed half the knowledge accredited to them, then ophthalmology deserves to rank amongst the lost arts of antiquity; for it is matter of history that during the 16th and 17th centuries and earlier half of the 18th century, the art was mainly in the hands of Quacks and Sciolists.

So general was the lack of information, that even the illustrious Boerhaave gravely affirmed that mercury would dissolve a cataract. To borrow his own Latin phraseology, *Mercuris saepe perfectus cataractas solvit*. Joseph Barth, a native of Malta, and afterwards a professor at Vienna, was the earliest scientific oculist of modern times. He was to ophthalmology what Lavoisier was to chemistry.

He popularized it and prepared the way for the advent of the von Græfes and Arlts, whose greater discoveries and achievements have been such signal blessings to the world.

At an early period of the present century a well-organized Eye Infirmary was established in London, which has done a great deal to disseminate light through all parts of the United Kingdom.

It is almost superfluous to say, however, that Germany has outstripped every other nation in this interesting field of investigation.

Much of this scientific advancement is due to the invention of the ophthalmoscope, which, as improved by

Loring, not only enables us to search the innermost recesses—the very adytum—of the chamber of the eyes and to know its condition as perfectly as the outer eye, but also to measure the degrees of refraction, so as to supplement the eye by artificial helps.

What we most need now for continued progress is a wholesome public sentiment which will appreciate true science and discountenance mercenary pretenders, whose treatment is as absurd as the conjurations of an Indian doctor or the prescriptions of a clairvoyant, but unfortunately not half so harmless.

It is a matter of sincere congratulation that so much has and may be done to alleviate suffering, and even heal deeply-seated diseases of the eye. We look, however, to yet nobler triumphs of professional skill in this department of science.

True the age of miracles is past, and we may not, therefore, hope to rival the Great Physician who could say to the blind, Bartimeus receive thy sight, and straightway it was done; or who, on another occasion, said to the nameless sufferer, who had been born blind, go wash in the pool of Siloam, and he went and washed, and came seeing.

We may, however, do much to soften the lot of that numerous class, who having eyes, see not or see dimly, and this labor, though inadequately remunerated, will make us like Him whose life-work was the doing of good, and thus, may we too, best fulfil the grander destinies of life, and thus discharge in some measure the debt we owe to our profession and to our common humanity.

FOREIGN BODIES, IN EAR AND NOSE.

By A COUVERT M.D., OXFORD, GA.

Your present correspondent, when a beardless M.D. of twenty-one (21) years, and when some old folks said to him he looked young enough to be going to school instead of practicing medicine; in the vexation of his mind retorted, that (in our rural region) "a big beard would be

worth more to him, than a bushel of brains." But many toilsome years have healed the defect and silenced the sarcasm. During that memorable period, he by accident, was present, when an old doctor laid a little negro on a table to extract a shot from her ear, politely requesting him to remain and aid in the operation. I, (to change the pronoun,) said modestly, perhaps doctor, if you will turn the shotted ear down and jar the head with the hand, the little heavy intruder will drop out. No! No! said the doctor, I can best extract it with a scoop, and he proceeded to work, the "nigger" to kicking and bawling, and the blood to flowing, and I to slipping out and away, not willing to share the honors of the "procedure," as neither of us had reputation enough for two. A young unprofessional man who remained in the room on other business, gave me the sequel. The doctor, after using scoops, some of them improvised for the occasion; tired and unsuccessful, turned over the girl's head, jarred it with his hand and out dropped the shot. As Dr. Paul F. Eve afterwards said, when informed of the facts, "the old doctor dropped out of the family and the young doctor dropped in." This case directed my mind to foreign bodies in the ear, and cases often occurred to test the mode that seemed most promising, namely, washing them out, which I long practiced, and I find of late is so highly approved by that distinguished gynecologist and surgeon, Dr. J. Marion Sims. He reasons with far more anatomical precision than I did. My process of reasoning was very simple. If I throw in a stream of water and the foreign body falls into the return current, it will come out, or at least within easy reach; the outflowing stream, though slower, is larger than the inflowing one, hence it will be more apt to strike it and bear it out. Experience verified this reasoning, whether a bug, or fly, or seed, or other light thing comes out, which it usually does, after a few injections. But if otherwise, the foreign body has probably adhered to, or becomes imbedded in the cerumen of the meatus, which may be washed out with tepid water. Sometimes, however, especially in old people, the indurated nucleus of cerumen, requires much time to soften and

bring it out. Impaired hearing is sometimes thus caused, and thus cured.

The benefits of posture of head, are not to be disregarded in removing heavy bodies, nor of drawing back the ear so as to straighten the meatus, nor of so keeping the point of the syringe pressed to one side as not to obstruct the outflowing current with its freight of foreign matter; neither should it be inserted far into the meatus.

When I was a boy, I saw an old negro, ("Uncle Sawney,") blow a china-berry out of a little boy's nose, after a real doctor, (not one of your patent medicine breed,) had failed in spite of his expert manipulations and glittering instruments. It was thus done. The boy was held head and hands. Sawney's finger pressed the unobstructed nostril to prevent escape of air, his open mouth covering the whole of the boy's mouth, he "blew him up," and then with a sudden puff, brought out the berry, like a wad from a popgun. I came into the professsion remembering Sawney, and have removed in the same way, peas, corn, pretty-by-night seed and other things, without blood, bawling, pain or trouble; but as the operator gets a splash of nauseous secretions in his face, I magnanimously operate by proxy, usually; only supervising an operation, which presto confers the degree of doctor of *nose-ology* on several other Sawney's of different colors and races, who happen to be only lookers on "in Israel." I should add, this blowing by Sawney was done more than a half century ago, and I still follow it, *con amore*.

VALEDICTORY ADDRESS TO THE GRADUATING
CLASS IN ATLANTA MEDICAL COL-
LEGE, MARCH 4, 1879.

BY COL. J. S. BOYNTON, GRIFFIN, GA.

YOUNG GENTLEMEN:

In behalf of the Faculty, I am authorized to commend your diligence and congratulate you on your progress and success in the collegiate course; to greet you with a cordial welcome to the threshold of the medical fraternity.

Your diplomas are passports and evidences of your respectable entrance among those who have consecrated themselves to that profession which should be esteemed the most honorable of secular callings. Honorable because it is an enquiry into the sublime structure of the human fabric; its various endowments, composition and uses; its diseases, derangements and decays. Watson has wisely remarked, "you cannot have looked into the mechanism of that intricate but perfect work, you cannot have contemplated its fullness of exquisite contrivance, its endless examples of means adjusted to ends, its prospective expedients against future needs, its compensations for inevitable disadvantages, its direct provisions for happiness and enjoyment, without receiving the profoundest conviction of the being and the attributes of its maker. It is upon human anatomy, that Paley in his unrivalled argument for Natural Theology, "takes his stand," and sixteen centuries before him, Galen had felt that, in writing his anatomical treatise, he was composing a hymn to the Deity, that a declaration so pure of the wisdom, power and goodness of God, was an act of piety and praise. Above if not beyond these investigations, is the high object to be accomplished, by wisely assisting nature in throwing off diseases, and, as far as practical, to prevent decay, by the use of such remedies as your scientific learning suggests, are requisite to the purpose of restoring health and relieving pain. To accomplish these noble purposes, it becomes essential for you to acquire a thorough knowledge of chemistry, and be able to grope amid the innumeral minerals, herbs, plants and flowers, which are endowed by divine power with medicinal qualities, tending to cure maladies, relieve suffering, and, in a word, restore health, and be able to administer the most efficacious of these at once. The field of labor is extensive, intricate, inspiring awe in its magnitude. When we pause and contemplate the crushing, or hope inspiring consequences, of your action, in an immergency, on the individual, his family and the community in which you labor, it will provoke a conception of the duties, anxieties and perplexities so intense in character, as to suggest,

the thought of an avalanch, moving down upon a community, with no mind to devise, no hand to provide the means of avoiding the approaching danger, but your own. To-night you are brought face to face with these duties, ultimately perhaps with these consequences. Allow me to suggest, that it will require active, personal effort and a heroic individuality, to become victorious in the contest. You may have imagined, that you have reached the goal to which you aspired, when you conceived the idea of being a physician; that you have entered the Promised Land, filled with golden, tinted prospects, ample fountains of wealth and pleasure, from which to quaff every ambitious hope. Indulge in no such delusions. The progress you have made, is but a flower plucked on the highway. Neglect to nurture and care for it by all the appliances, and it withers, dies within the hour, and you will have only worthless leaves, or at best a souvenir of what might have been. Once upon a time, a man by the name of Moses had a vexatious contest with old Pharaoh, before he could induce him to allow his people to quit Egypt and cross over the Red Sea, as you have professionally done to-night; and, for the sake of my learned friends, the professors, I am gratified it is not a literal occurrence. When Moses and his people found themselves safely across and free from bondage, they sang praises and gave thanks; but while yet rejoicing, they immersed into a wilderness, and he found himself surrounded by many difficulties and grave responsibilities; still he was firm and endeavored submissively to perform every duty, for forty years, and yet, he only had a view from afar, of the Promised Land. Since we have Moses and you all in the wilderness, it occurs to me, that I can get you out in no safer way, than by giving a little original advice. It is original on the line only of a sentiment which a friend, insisted on giving over a social glass. Says he, before drinking, allow me to offer an original toast: Unique, appropriate, elegant in expression, never conceived by mind, or uttered by lips on any similar occasion. "Old fellow, here's luck." Now I offer as a counterpart, in conception and elegance. Old horse, get out of the wilderness! Get out of the wilderness!

By this seeming ridicule I would not have you understand that I place a low estimate on what has been taught and learned here; far from it. But to impress the idea that this college, although justly renowned for thorough instruction, cannot make any one of you a physician in the practical sense. Colleges do not make men, but learned men, when organized, make colleges. They give you the primary or theoretic instruction, and start you out in the great world with the title of M.D., and by your actual conduct and judicious application of what you have been taught here and afterwards acquire, you may or may not make that title honorable.

These learned and skilled professors have furnished you with what may be termed a topographical map of the ground over which you must travel professionally, on which they have marked out many of the more important highways and obstacles; but the devious ways—the by-paths, little streams, the minutia—must be learned by practical observation, by mixing brains and learning, business and enterprise, and driving all with personal effort. You can thus make the chance for success, and having made it, you can then dart at and gobble up the chance, like a trout on a minnow. An empty exchequer is an oppressive master, requiring thought and diligence. In old age, however, it furnishes no comforts.

We travel, manufacture, plow and transport by steam, correspond by electricity, read our devotions by proxy, accumulate fortunes for loved ones by dying, write by short hand, physic by patent, and learn science by hearing lectures; but as yet we have not invented any process by which one can think for another. Precedents and the experience and observation of others are of vital import, and should be thoroughly learned, carefully digested, and garnered in the store-house of memory, ready, like a bank account, to be drawn on in any emergency. But if any of you are so ignorant or indolent as to contemplate the possibility of relying on what others have thought, seen or written, then burn up your diploma, leave off the M.D., and hire yourself out to break rock before you leave the city.

Be assured only those certainly succeed who are prolific in devices and fertile in expedients—that look on obstacles as things to be vanquished, or regard them as spring-boards by which to vault across the gulf of failure to the sure, solid ground of success. Our strength is measured by our plastic power. From the same materials one man builds palaces, another one hovels; one warehouses, another villas. Bricks and mortar are mortar and bricks until the builder makes them something else. Then, instead of saying man is the creature of circumstances, it would be nearer the mark to say that man is the architect of circumstances. Nor is it well to be regarded as the promising man; for he who draws largely on expectations will have his drafts returned dishonored. The coming man is a failure; the fellow who wins is already on hand.

Yours is no common-place calling. Your services will be required only on occasions of delicate, doubtful or hazardous character. Often your thoughts and acts, concentrated into a few moments, will determine the health, happiness or life of the patient. At another time your own life may be in as much jeopardy as that of the person visited. Again, you may be called to walk amid the solitude of pestilence and wide-spread lamentations of woe and anguish too terrible for description, too heartrending for contemplation. It would shudder the frame, derange the nerves, overflow the sympathies, and in its presence one would stand transfixed—appalled. Yet, amid such scenes, with such surroundings, you may be called to think, act and alleviate. Stop where you are in preparation; do you believe yourselves equal to such an emergency?

It is not in my power to prescribe any fixed rules of conduct and labor that will qualify you for these duties. The formulas for getting on in the world, which are laid down in maxims, lectures and treatises on that subject, might be enunciated; but men do not conquer by routine no more than a man can learn politeness by practicing the rules prescribed by Lord Chesterfield. In that way one might become formal, but to be polite there must be

sympathy, enthusiasm, gushing, in order to have winning ways. Neither can an officer become a great commander by studying the theory and history of war, nor can a lawyer become a great jurist by learning precedents. No more can you rise to eminence as a physician by acquiring what is laid down in the books. Theory and knowledge are indispensable. No business, calling or profession can be well or honorably followed or successfully pursued without them. But there must be an individuality marked, distinct, self-reliant, and, in your profession, heroism, super-added, to drive the man on to success. The engine may be perfect in all its parts, the boiler full of water, the furnace of fuel, still there must be fire to generate steam to start, the machine to moving. So thought, practical thought, is the generic power which moves the man—gives him individuality; and this marks him as different from the common herd.

In looking over the world, the relative habits, uses, instincts, designs and purposes of each separate creation are apparent; and we observe how all are beautifully blended into the grand harmony of nature. The landscape presents its dense foliage, plants, grasses, cereals, flowers, rivulets. The hills and valleys present striking peculiarities, while the distant mountain, lifts its lofty peak toward the skies, giving grandeur to the panorama, each contributing manifold beauties to adorn the scene. From these observations we deduce the idea of a striking parallel, between nature and the attributes of humanity. The variety of form and feature, and contrast in person, indicate the natural undulations of hill and vale; but like the mountain, the distinguishing feature of human character, is individuality. It magnifies the power of self and indicates a firm reliance on personal effort; conceives results and suggest ways and means to accomplish; confronts dangers and obstacles, and inspires courage to overcome and conquer. Its attributes are decision of character, fixedness of purpose and enthusiasm, and it is this characteristic which makes the man of progress. If one is content to be a man, simply in resemblance of others, or to move on in the groove made by his ancestry

or preceptors, then he is a mere follower. I would stir your ambition to nobler ends. To move magestically along ways of your own construction or choosing—to become thinkers and leaders.

Maury and others have so distinctly designated the highways on the ocean, that one with ordinary intelligence might direct the course of a vessel from one harbor to another, yet it would be reckless indeed, for one with no more knowledge than could be acquired from Maury's great book to undertake to navigate the high seas. Minute information of all the details is requisite for such responsible duties. So it is in your profession, indeed in all a thorough knowledge of details is pre-eminently essential; must depend on every stroke of your pen in writing a prescription; in every word you utter; in suggesting the effects and consequences; how the patient is to be nursed, controlled and fed. Even the intonations of voice and facial expressions are trifles worthy of consideration. Great truths and leading principles must be learned and understood; but without an intricate observance of details you will constantly find yourself embarrassed by difficulties, if not mortified by innumerable failures.

You have gone through the school; to-night you separate from professors and fellows; now indeed you commence the battle of life; if you would gain victory, drill and discipline your forces; learn the various movements from the square drill to the evolutions of the line; enlist new recruits; place the veterans in reserve; organize and have all advantageously posted, so that at any given moment, you may bring them marshalled in good order, promptly into the contest. Bear in mind that you cannot rely on foraging for supplies, like cavalry on a raid. If you do, while foraging or seeking information about how to treat the disease, the patient dies and victory's lost.

You cannot hope for immediate success; indeed you are not prepared for it; wait and labor for the better time, for it will come, if you are diligent and watchful; do not become impatient and halt at the base of Sinai, and begin to gather gold to make an idol of. Leave that ignoble duty for quacks and nostrum peddlers; live up

to all the ethics of your profession. Take that which is your due and the accumulations, if husbanded in a business way, will be commensurate with your merit.

Would you have me recite what others have done and accomplished, in order to incite you to diligent action? Rather let me conjure you to contemplate the dignity of your chosen profession, the magnitude of responsibility assumed, the exalted, sacred mission you have entered on. If these fail to move you right onward, then example and precept enforced with matchless eloquence would fail. If one rose from the dead and exhorted you, that would fail. If all the fires of Vesuvius were poured on such a terrapin-like shell, that would fail to produce even a *single crawl*. Would you have me detail how other men have risen? One and all of the successful of the past and present, and those who will rise in the future have, and must, observe the same rule. It is short, inflexible, inexorable—labor and thought—thought and labor, WITH A SOUL IN THE WORK.

In taking leave, young gentlemen, permit me to thank you and this patient audience for attention to the rambling thoughts which I have loosely thrown together in the midst of severe professional engagements. To a great extent the health, life, liberty, property and secrets of the community in which you locate will be entrusted to your keeping. Your mission specially is to heal the sick, relieve pain, make the lame to walk, the blind to see; but there is a higher duty—if you come well up to your duty—which you may perform. While standing by the bedside of affliction feeling the pulsations of the heart with one hand, you may, with the other, point out the way to a higher destiny—the immortality of the soul and the more perfect life beyond. The Saviour was called the Good Physician, and his mission was to go about doing good. You can best fulfil your duty and destiny by imitating his noble example.

VALEDICTORY ADDRESS OF DR. W. W. JAMES.

Honored Professors, Fellow Students, Ladies and Gentlemen:

The Commencement exercises to-night close the twenty-second annual session of the Atlanta Medical College.

By the kindness of my colleagues I have been honored with the duty of addressing you, and in their behalf, as well as my own, I am here to say farewell.

I am confident that from this hour and this occasion we will sever some of the happiest associations of life, but around it will cluster the dewy blossoms of hope, and with it will ever linger some of the brightest memories, the most pleasant recollections of our lives. Everything pertaining to human life in its minutest details and in its grandest results, has its beginning and its end. The joys and sorrows, trials and triumphs of men and women of every age, in every condition, under every form of government, with every creed in religion, and in every type of civilization, have their end.

The practice of virtue ends in happiness—of vice, in misery; and the world's history is but the illustration of this vital truth.

Studious application ends in profound scholarship—negligent inattention in dull stupidity. Unholy ambition grasps at the bauble of fame, and seizes the emptiness of vanity, and the golden fruit upon which the hungry spirit would feed "turns to ashes upon the lips." Struggling genius combats the world's cold inattention to its sublime conception, which condemns its victim to a life of disappointment and often of beggary, and sets history ablaze with a flood of posthumous glory.

The conqueror drenches an empire in blood and wins the execration of mankind, while the patriot offers upon his country's shrine liberty's last libation, and emblazons his memory in historic immortality.

The end of sorrow is joyful, and the end of joy is sorrowful. This, ladies and gentlemen, is an occasion of mingled joy and sorrow. With high hopes and pulse-quickenings anticipations, we are about to go forth upon the world's broad field of battle on our eventful missions.

But the beginning of our professional life is, for many of us, the end of our sojourn in your enterprising city.

We need not say our stay in your midst has been pleasant. We trust it has been profitable as well; and when the spirit of the future, linked to the chariot of the present, has borne us down the lane of life, may you, as well as we, look back to the sunny shores of by-gone years from the silvery strand of a shadowless clime, and cherish happy memories of us and our sojourn in your midst. Let me ask, too, that you will ever cherish our Alma Mater, and welcome those who are to come after us as kindly as you have greeted us.

To us the future is full of promise, and our floating barques are freighted with hope. This occasion fills our hearts with pleasant emotions, and inspires us with a feeling of our personal importance; for of course every young doctor feels that the physical destiny of mankind rests upon him! The very name carries with it no ordinary significance to a young gentleman just starting upon the practice of medicine. Yet, while these things produce in our minds a pleasureable sensation, the golden joy is not unmingled with an alloy of sorrow. Yea, there is a peculiar sorrow in ending pleasant relations, in severing happy associations, which in all probability are never to be renewed. This sorrow, however, is not peculiar to any age or condition. It melts the eye and thrills the heart of the student to behold his class separating to meet no more, just as it thrilled the heart and melted the eye of the great Washington, at the close of the Revolution, when he embraced for the last time those iron-hearted heroes who had stood by him in its perils and aided him in achieving its glorious results. Hence, it is with feelings oscillating between joy and sorrow, that I appear before you to-night.

To attempt to please your fancy by wandering with you through the flowery fields of rhetoric, would be to fail. To attempt to excite your mirth by a humorous speech would be futile.

To endeavor to delve in the vast repositories of human thought, for a new theme, with which to present to you, would be unpardonable presumption; I must, therefore, be

content to bid you, dear citizens of Atlanta, a simple, sincere, unadorned farewell.

Fellow students, we are standing to-night upon the threshold of an active life, and, as we peer anxiously into the mist of the coming years, it is but natural that our inexperienced minds should be filled with bright anticipations of success, honor and happiness, which we trust await us in the future. Notwithstanding the gray heads and furrowed brows of our teachers, which point like silent monitors, to the battles to be fought, the hardships to be endured, and the defeats to be borne, we glance eagerly at the arena of life, impatient to launch fearlessly amid the tide of contending spirits, in the fierce struggle against disease and oblivion.

The bright panorama of life is spread out before us. We have yet to play our part in the world's great drama, and it may not be amiss to consider the course which should distinguish our career.

Our profession is an absolute necessity. Our mission one of mercy. We are to be the good Samaritans who are to minister to suffering humanity, along the dusty wayside of life, and, upon the faithful performance of these duties, depend our future happiness and success.

It is, therefore, of the utmost importance that we should be thoroughly versed in the science of medicine.

This is by far the most enlightened period of the world's history, and he who wins distinction, and gains the confidence of his fellow men, must do so by a thorough knowledge of the profession he selects. I would not for a moment encourage an unholy ambition, which has for its sole object self-aggrandizement.

"For 'tis a glorious cheat,
Yet angels of light walk not so dazlingly
The sapphire walls of Heaven!
Earth's constellated thrones hath not such gems."

But like the beautiful and deceptive mirage upon the burning desert, it will allure the traveler from the highway of honesty and virtue, until exhausted and disheartened with the fruitless chase, he sinks beneath the

waves of oblivion, with the maddening consciousness, that,

“Doubly dying he shall go down
To the vile earth from which he sprung,
Unwept, unhonored and unsung.”

Cæsar had such ambition, and the hand of his best friend struck home the fatal dagger, and his life blood paid the forfeit.

Napoleon, who bathed the fetlocks of his war-horse in the blood of his countrymen, flung the silken folds of his banner to the breeze, upon the cloud-capped summit of the Alps, faced unflinchingly the burning sands of the desert, and flashed back the sunbeams from his victorious falchion at the foot of the grand pyramids of Egypt—even Napoleon was a prey to this ambition. Upon the blood-stained field of Waterloo, the star of his glory went down in blood, and he died an exile upon the rock-bound shore of Helena.

Then my comrades, shun its baneful influence, as you would the blistering dew upon the deadly upas.

Ours is not a profession, in which bright laurels and brilliant blossoms of renown will bud and bloom in a day. We cannot

“Dive to the bottom of the mighty deep,
And drag up drowned honor by the locks,
Nor soar into the region of the skies
And pluck bright honor from the pale-faced moon.”

Still with a thorough knowledge of our profession, a heart to pity, and a hand to help suffering humanity, we may leave an impress upon the minds of the people, that shall never be obliterated, until the withered hand of Time shall fall powerless to his side, and nations revel in eternal youth.

Fellow Students, we stand *only* upon the threshold of our professional life. Our medical education is but just commenced, and to fit ourselves for the duties and responsibilities of the future, will require patient application, untiring energy, and thorough mental culture. Let us not be deluded with the idea that simply because we have our diplomas we may sit inertly in our offices and business will come to us.

Time was when a man could boastfully pretend to a knowledge which he did not possess, and could abuse the confidence of an ignorant public, but that time has passed. Ignorance is fast giving place to intelligence, and the man who now succeeds must do so upon the basis of merit.

"Let us, then, be up and doing,
With a heart for every fate,
Still achieving, still pursuing,
Learn to labor and to wait."

Ours is a noble profession, and has numbered in its list of votaries some of the proudest names in history. He who practices medicine upon principles of truth, honor and fidelity, may be absolutely certain of a useful life and an honorable reputation that will live

"To win the wreath of fame,
And write on memory's scroll a deathless name."

Yet we cannot hope to find the "gems of the beautiful" scattered all along our pathway, nor expect to shun the thorns while we gather the sweet scented rose.

We will often meet with disappointment, and our most earnest endeavors be sometimes crowned only with defeat; but by an unswerving integrity of principle a thorough development and culture of our minds and the exemplification of a noble manhood, we may leave such a record that not only our friends may admire, but even the world may say,

"I've scanned the actions of his daily life
With all the industrious malice of a foe,
And nothing meets mine eyes but deeds of honor."

And now, honored Professors, this hour which dissolves the relation existing between us as teachers and students—a relation which has associated us in labor and allied us in friendship—a relation that has imposed upon you the high and important duty of fitting us for the responsibilities of life—this hour, which severs such relations, brings to me the happy privilege of returning to you our earnest thanks for your untiring efforts in our behalf.

As each sacred tendril is broken from the heart, it stamps with its flowing blood-drops the tablets of memory; so when the chain is rent and our barques float out

on life's ocean, and the high waves from time's deep sea have swept between us, we will ever hold in grateful remembrance the kindness which you have ever shown us.

The fidelity which you, our respected professors, have displayed in the execution of this sacred trust, evinces your appreciation of its magnitude.

The principles of science which you have inculcated, will, we trust, be the basis upon which, by industry and application, we may rear a noble superstructure, but of which you will still be the architects. The discipline, through which we have passed, will aid us in future, as we ramble through the vast and unexplored fields of science.

We do not feel discouraged at the reflection that there is still so much for us to learn, but rather stimulated to renewed exertions, assured that patient, persistent and energetic effort will enable us to reach the goal of our aspirations, and reflect credit and honor upon our Alma Mater.

Through these long years, while we, remembering "there is room at the top," strive to ascend the hill of life and of fame, may the uncertain future steal softly from out the gloom, and so gently unroll time's printed page, that his hand may fling bright hours around your way, and his latest footstep bring only blessings for you; and may we never rest low in oblivions dell, until that time, when far from earth's joys and cares, we hope to meet—nor ever say farewell.

And we, my comrades, who have in the past, shared such pleasant associations, formed such warm attachments, and enjoyed such genuine friendship, will, as we disperse and go forth upon the world's broad field of battle, bear with us joyous recollections, and enshrine within our hearts happy memories, to which we can revert in after years, when we perchance may be weary with the bivouac of life.

These pleasant reminiscences will shed their light upon the deepest gloom of the untried future; and in the darkest hours, when our hearts are faint, as the captive Israelite, upon the bank of the Euphrates, turns his anxious gaze to the vine-clad hills of native Palestine;

so we, my fellow students, borne in the tender arms of memory, may return to these consecrated scenes, and bathe our spirits in the joys forever fled.

If we never more meet within the halls of our beloved Alma Mater, let us strive to honor our teaching, and be true to the noble principles taught us by these esteemed preceptors.

Let us remember, always, that hearts had ne'er been supernal, without a world to brave; and when life's leaves shall wither, may we have gathered many gems of virtue; and when the bloom of life's coronal has faded, may we weave living circles around immortality.

Till then, my class-mates, though the leaflets of memory, hang dripping with tears, while we speak the word—yet we, too, must say *farewell!*

DIFFICULT LABOR IN A CASE OF TWINS.

By J. LOVICK SAPPINGTON, M.D., WEST POINT, GA.

Called December 11th, 1878, to see a negress primipara; arrived at half-past 11 o'clock; found that she had been in active labor seventy-five hours; condition good for the length of her suffering; lower extremities and body of a child external to the vulva, and had been for twenty hours, and another in utero.

Bringing down the arms and exerting gentle traction the right shoulder came under the pubis; a few strong pains and traction having no effect, a more careful examination revealed the occipital bone of the head of the first child, resting on the brim of the pelvis right side, and the same region of the head of the second child under the chin of the first, and os frontis infringing upon left lateral brim of the pelvis. Not being certain of my diagnosis, I sent for my father, Dr. J. S. Sappington, who confirmed my opinion, and assisted me out of the scrape in the following manner: Introduced my left-hand dorsum to the chest of the child, and with the points of my fingers against the vertex of the presenting head, raised it upwards, and

to the mother's left, and, at the same time, bimanual pressure by my father, caused the head of the first child to come down into the pelvic cavity, and a pain coming on the child with my hand was expelled, and the next pain the second child and the placenta came away; both children still-born, the mother making a fine recovery.

In my reading I recollect but one similar case (recorded in Ramsbotham's *Obstetrics*, by Keating, page 468,) and in that the first was decapitated, and the second delivered with the forceps. I am frank to confess that I do not like to cut.

Reports of Societies.

ATLANTA ACADEMY OF MEDICINE.

H. F. SCOTT, M.D., REPORTER.

ATLANTA, GA, February 10, 1879.

President Dr. J. S. Tood, in the chair.

Dr. Salm desired to present the synopsis of a case demonstrating the utter futility of treating chancroid with mercurials and caustics.

On the 10th of January last, Mr. Z. came to him and stated that he had been under the treatment of several physicians, one of whom had given him mercurials and applied caustics to the ulcer for about two weeks, but the latter steadily growing worse, he had gone to another physician, who recommended mercurial inunction, and besides gave mercurials internally, and with local application of caustics, but all to no purpose.

On examining his penis, he found one of the most marked cases of chancroid, that had ever come under his observation—being a deep ulcer upon summit of glans, running along corona, upon right side, to fraenum into urethra; also a fistulous opening from bed of ulcer; there was no swelling of lymphatics.

Patient stated that the case was of three month's standing, and was afraid glans penis would slough away. In order to cleanse ulcer of muco-purulent discharge, and set up a healthy action, he prescribed the following lotion, to wit:

Hydrary. bichlor corros, - - - 0, 40 g

Spir. vini concen, - - - 4, 00 g

to be applied three or four times daily, with camel's hair pencil, and covered with charpie.

On his return, two day's later, we had a fair view of the case, and prescribed:

Ferri Potass-Tart, - - - 15, 00 g

Aqua pura, - - - 250, 00 g

Tablespoonful four times daily; few drops of same fluid to be applied to ulcer several times a day; enjoining, at the same time, scrupulous cleanliness.

A few days thereafter, he returned with no improvement, except closure of the aforementioned fistulous opening; the treatment was, nevertheless, persevered in, and, at the expiration of about five days, ulcer began to show signs of healthy granulations, with decrease of oedema and hyperæmia, in surrounding tissues.

In addition to above treatment, he was now given the following:

Argenti Nitratis, - - - 0, 48

Glycerrhi pura, - - - 60, 00 g

Aqua, distill, - - - 60, 00 g

to be dropped three or four times daily, on ulcer.

The last lotion was three days later, rendered more concentrated by the addition of twelve centigrammes, (two grains) of nitrate of silver.

Under this treatment, depression left by ulcer had about half filled out, and his patient was of "good cheer."

February 5th.—Found marked improvement, but changed treatment to:

Ferri sesquichlor, - - - 2, 00 g

Glyc. pura., - - - 2, 00 g

Spirit vini concen., - - - 1, 00 g

Aqua. distill, - - - 1, 00 g

to be applied with camel's hair pencil.

February 10th.—Saw patient, and was doing remarkably well.

The President asked Dr. Salm the length of time patient had been under his treatment, and expressed opinion that treatment pursued above was virtually using caustics. Said all admitted that mercurials were not indicated in chancroid.

Dr. Salm replied that the case had been under his treatment for four weeks, and was not yet entirely healed. Is of the opinion that any local applicant should be varied from time to time, as it was apt to lose its effect.

Dr. Wilson is an advocate of caustics, from favorable result in his hands. Related a case where glans penis being almost entirely destroyed, and wishing to save as much as possible, he applied nitric acid, and followed it by a poultice. He afterwards applied nitrate of silver, and prescribed tonics. He likewise treated a young female with several chancroids just within labia minora. Both cases progressed favorably.

Dr. Calhoun hasn't had much recent experience, but should be tempted to use caustics, to say the least. Thought cauterization would not aggravate the case; but, on the contrary, hasten the healing process.

Dr. Howell related a case of Dr. Willis Westmoreland's, where the application of nitric acid to severe chancroid was used with fine result.

The President said it was not now fashionable to cauterize chancroid; but at least in phagadenic chancroid they should be applied with a vim. On the day after cauterizing he was accustomed to sprinkle on powdered iodoform, which was preferable to a salve of the same, from not being so offensive an odor. This powder relieves the pain and promotes healthy granulation.

Dr. Mack believes in cauterizing chancroid, and has usually found it efficient, if thoroughly applied; where the caustic doesn't readily penetrate to the seat of the disease, it is only necessary that it be repeated. In one case where he had cauterized a phagadenic ulcer patient neglected to return for inspection, and the glans sloughed entirely away. The consequent bleeding and ulcer were best re-

lieved with cauterizing iron, heated to a dull redness. This, together with tonics and food, cured the case. The hot iron acted as hæmostatic and local stimulant.

Dr. Calhoun presented two specimens of enucleated eyeballs, with history of the cases. In the first case, that of a boy, aged 10, a piece of unexploded cap had struck the upper lid, just under the eyebrow; wound bled temporarily, and was examined by a physician, who detected no foreign body. Next day, patient feeling no unpleasantness, went out hunting. During the day the ball began to swell, and in six or eight days, when he saw the patient, it was of enormous size and very hard, and pus was to be seen in anterior chamber—in fact, it presented every appearance of panophthalmitis. Thinking that a piece of the cap was within the eye, he decided upon enucleatio bulbi, which was accordingly done. Upon making the last cut the slight pressure caused pure pus to be poured out through the wounded lid, and with it the cap, which had penetrated the lid and eyeball and set up the inflammation and immense infiltration of surrounding tissues. Patient recovered in a short time. Peculiar, in that the boy saw naturally, and presented no untoward symptoms till 48 hours subsequent to injury. There had been no symptom of sympathetic ophthalmia.

The other case presents several interesting aspects. An old lady, 68 years of age, while in attendance upon her daughter during confinement, had charge of the baby, which was suffering from ophthalmia neonatorum of so severe a nature as to result in the loss of both eyes. Accidentally getting some of the virus in her own eye, inflammation of a severe type ensued; cornea became infiltrated and ulcerated, and entirely sloughed eventually, leaving iris exposed and bulging forward. Vision became daily worse, and symptoms of sympathetic ophthalmia beginning to manifest themselves, in the other eye, he, at patient's request, removed the stump of the ball. The removal was rendered the more difficult from the absence of cornea, and narrowness of the interpalpebral fissure, due to infiltration of the parts; hence the slightest pressure sufficed to cause loss of humors. Dr. C. said the case was

mainly interesting from the age of the patient and manner of its contraction. In children it was well known that purulent ophthalmia was almost always fatal to the sight. In answer to a question from the President as to orthodox treatment of ophthalmia neonatorum, Dr. Calhoun stated that on account of the excessive secretion of pus, much stress should be laid on the importance of cleanliness, which should be attended to every half hour, the bad results in many cases being due to a lack of proper cleanliness.

The attending physician should use once daily a solution of nitrate of silver, 10 grains to an ounce of water, neutralizing with salt water. The attendants should be given a weak solution of sulphate of zinc, with directions to apply it freely.

The President related a case where a woman, washing her eyes with urine for sore eyes, innoculated them with gonorrhœal virus. In this case he used a 20-grain solution of nitrate of silver, but found it too strong; nevertheless, patient recovered.

Dr. Calhoun heard of a remedy to-day for the first time—it being the use of fresh cow-dung poultice in sore eyes.

Several members mentioned its use by the laity in various affections.

Dr. Wilson was sent for by a young lady, aged 22, who had been sick since last June; she complained of frequent micturition, somewhat bloody, and of loss of flesh and appetite. Had been treated in Chattanooga for cystitis and nephritis with blisters, parsley tea, etc; had also been treated for retroflexion of the uterus. On examination he found womb in normal position, but sensitiveness about urethra, in which he could only introduce a No. 8 French bougie; it seems there was a stricture half an inch from posterior to meatus, following a severe gonorrhœa, which the patient acknowledged having had. Having administered ether, he introduced a "meatrome" with exceeding difficulty and divided the stricture to the extent of allowing the introduction of a No. 36 bougie. Gave quinine and hip-bath, and secured comparatively good night's rest. The patient was an opium eater, and

knowing that the antidote she was using contained this article, he ordered it in increased doses, and 5 or 6 grains quinine daily. Had operated on the 24th January; Saturday after the patient was very much better; gave flax seed tea to relieve irritation about the bladder.

Dr. Mack asked Dr. Wilson his treatment for prostaticitis in aged persons. He replied: Blister to the perineum, leeches and warm hip-bath.

Dr. Mack stated that ergot was used by Dr. Cabbott, of Boston, with great benefit; he gives it in $\frac{1}{2}$ to 1 drachm doses of the fluid extract, carefully watching its effects. Recommended placing the "eye" of a pair of scissors on the lids and pressing backwards so as to surround and fix firmly the eye-ball, in cases where foreign bodies, such as bits of iron and steel had become impacted in cornea. By this method, for the suggestion of which he was indebted to a friend, one was enabled to safely remove such objects without any anæsthetic or the use of a speculum. Asked the members which was more commonly given in Atlanta—ether or chloroform?

Dr. Calhoun uses chloroform invariably and without any dread of its effects; where children are unruly, he often gives it to quiet them during an examination or treatment of the eyes; never had any trouble to follow, except in one case, and which he succeeded in overcoming. Some patients would shudder at the sight of scissors, hence he uses the fingers alone, placing one upon the upper and another upon the lower lid, and pressing firmly backwards so as to effectually protrude the ball and steady it between the two fingers.

Dr. Mack said ether was used almost exclusively in Boston, and chloroform was very much in prejudice, so much so that one losing a case during its administration, would not be sustained by the courts.

Billworth having lost two cases from chloroform, quite a sensation was produced, and since then, B. had usually given a mixture of ether and chloroform.

In conversation with Dr. Squibbs, he was told that Squibbs' ether was made exactly according to the Pharmacopea; he thought they wasted ether in Boston, where

they frequently gave a patient an immense quantity. Said that the more of it that was given the greater the likelihood of vomiting ensuing; hence, he (Squibbs) had invented an inhaler by which he could keep one anesthetized $1\frac{1}{2}$ hours with only 2 ounces ether.

The President said the difficulty with inhalers that he had inspected, was that too little air could enter them, and asked if he didn't consider them dangerous on that account.

Dr. Mack said statistics did not indicate this; besides, they should be taken away at intervals.

The President mentioned that Drs. Willis Westmoreland and J. T. Johnson used ether exclusively.

Dr. Calhoun said the objection to ether was the amount consumed and the length of time necessary to its administration; besides, there was a great waste, which filled the room and clothes of the operator. Besides, nine out of ten times it was followed by vomiting, which was disagreeable always, and particularly dangerous after cataract operations.

Dr. Scott was opposed to the indiscriminate use of chloroform; he usually gives ether alone, or, in cases where nausea would be prejudicial, he begins with ether until he has tested the patient's ability to stand an anæsthetic, and then finishes up with chloroform.

By pursuing this course he had never had any disagreeable consequences to ensue, and all nausea was, as a rule, obviated.

In operating for cataract, he generally gave no anæsthetic at all; whilst in enucleatio bulbi he preferred ether, as the attendant nausea was rather beneficial than otherwise.

Mentioned that Boley, of Berlin, used an injection into rectum of fluid extract ergot and glycerine, for enlarged prostate; whilst others injected hypodermically in perineum.

Academy adjourned.

January 20, 1879.

The President J. S. Todd, M.D., in the chair.

Dr. A. W. Calhoun was called recently to LaGrange,

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Georgia, to see Clifford Mayson, a youth, aged ten, who had met with a painful accident, which resulted in the loss of an eye.

While running with a two edged knife in his hand, the blade being about two inches long, he fell, the blade entering the socket, at the inner canthous, making a wound at right angles with the lid. Upon its withdrawal by patient, a wound nearly at right angle with nose was produced, and also the ball was entirely dislocated, but not wounded. The force of the fall was so great that the blade of the knife was bent. All efforts by the attending physicians to replace the ball were futile.

When he arrived, the following history and treatment was given him by the medical attendants:

Failing to restore the eye to its place, they had kept emollient applications to the face to prevent sloughing of the cornea, but despite this proper procedure, the ball had become soft, and the cornea already—twenty hours after accident—showed signs of sloughing. In a few hours after the receipt of the injury, the pulse fell to between thirty and forty, and the respiration accordingly short. He had never lost consciousness, and complained of but little pain. It was seriously feared that he would sink, as they believed the brain had been entered through the roof of orbit. In five or six hours, however, he rallied, and was, so far as pulse, breathing, etc were concerned, in a natural condition when seen first by Dr. C. He found the ball tightly held by the lid, and completely extruded from socket. After an hour's manipulation, he succeeded in restoring it to its place, but so soon as pressure was removed it would immediately pop out again. A careful examination of the orbit with finger, revealed no solution of the continuity of the bones. He said that the depression aforementioned, was occasioned by compression; the pressure being caused by the forcible dragging forward of that portion of the brain which gives origin to the optic nerves, and that as the brain accommodated itself to the new relations of the parts, the depression wore off. Under chloroform, the eye was enucleated in the ordinary way. The optic nerve was cut close up to the ball, and

immediately retracted. It was found, upon examination of ball, that the internal rectus muscle was severed, and also, half the circumference of the optic nerve, and with the central artery of the retina. The extravasation of blood, which must have taken place immediately from the cut artery, has filled the orbit, and this prevented the replacement in the first place, and the absent muscle allowed the displacement to recur as often as the globe was replaced.

The protruded ball completely hid the lids, and to inspect them and the parts adjacent, was the object of Dr. C. in replacing the eye, before enucleating it.

Dr. Baird was of the opinion that shock, and not pressure, was the cause of the depression. A large nerve was wounded, and much force used, much more than in ordinary enucleation. The President asked Dr. C. if enucleation of the eye, the patient not being under chloroform, was usually followed by such depression, and if there were other evidences of shock, weak pulse, moist skin, etc.? Dr. C. said that he had never performed the operation without first anesthetizing patient, but that the history of such cases before chloroform or ether was used, give no account of shock. The cutting of the nerve is comparatively harmless. There were no other symptoms of shock, the pulse, while slow, was full and hard, and the skin natural.

The President agreed with Dr. C., and thought that a restoration of the pulse and breathing to a normal condition, was facilitated not only by the parts accustoming themselves to the changed relations of things, but also to the fact, that the natural elasticity of the nerve allowed of the part pulled forward in a measure resuming its accustomed place.

February 24, 1879.

The Academy called to order by the President, Dr. J. S. Todd.

No reporter's abstract.

Dr. Calhoun presents a cockleburr as specimen, and relates case of a boy æt. 11, who, in driving up cows a week

ago yesterday evening, ran through field with mouth open and received several of the burrs into his mouth. His breathing instantly became very difficult, while he introduced his finger and took out two or three of the offending objects. The breathing was, however, not at all improved by the removal of these, and immediately that he reached home a physician was called. The parents were advised to send the boy to Dr. C., and he was brought to him the next day.

When Dr. C. saw him his breathing was extremely labored, and he could neither speak out nor whisper. Examination with the laryngoscope revealed a burr lying between the two vocal cords, and the parts very much swollen. The burr was so firmly held that after repeated trials at extraction with laryngeal forceps tracheotomy seemed inevitable. Fortunately, on a last attempt, the offending body came away. Instantly the breathing improved, and the boy, who had not slept since the accident occurred, fell into a refreshing sleep in the office chair; went to sleep again at 2 o'clock and slept until 12 o'clock the day following. Examination next day revealed ulceration of vocal cords. The child did very well afterwards, and was sent home in a few days.

Heard from him yesterday, but has not yet recovered power of speech.

The President resigning the chair in favor of Dr. Calhoun, related a case of a boy who had likewise gotten a cocklebur into his bronchi, but without being conscious of it. Cough, accompanied by profuse expectoration and other signs of phthisis, colliquative sweats, etc., followed, for which reason patient was supposed to be suffering from tuberculosis. After remaining in his bronchi for 2 years it was finally dislodged and discharged during a profuse expectoration of pus and mucus. Followed by complete recovery.

Dr. Low knew of a case where a boy retained a nickel in his larynx for a long period of time. Cough and expectoration existed during whole time. Finally thrown off, and coin was found to be sharpened on edge.

Dr. Miller knew of a case where a cocklebur had been lodged in air-passages, but was fatal in 48 hours.

Dr. Calhoun cited the case of a boy who, when 7 years of age, had some foreign body enter his air-passages. For seven years longer he was constantly troubled, and no one had hopes of his recovery. At the end of these seven years Dr. C. saw him. He could distinctly hear the rattling in his trachea, as if some foreign body moved up and down with respiration. Examination with laryngoscope revealed nothing. Saw no more of him for two years, when he was called in consultation. The physical signs indicated pus in pleura. And after procuring the additional consultation of Dr. Battey, they proceeded to introduce the trocar and canula. An immense quantity of pus was evacuated at the time. The opening was somewhat enlarged for the evacuation and injecting of the cavity, but during a severe fit of coughing it served the better purpose of giving exit to the long-offending body—a cocklebur.

The exciting cause of this attack was exposure to cold atmosphere after confinement in a warm room.

The patient soon recovered and is now a strong, healthy young man, exhibiting his burr as a curiosity.

Dr. Calhoun next related a case of extirpation of ball of eye. The patient, a young man, suffered about five years ago from iritis and cyclitis at same time. Lymph was thrown out on the crystalline lens as a result and gave it the appearance of a cataract on casual observation.

On examining eye some three months ago found that some softening had taken place and advised removal of ball. The patient objected and returned home. A few days ago he came back complaining of pain in the other eye, and upon examination found commencing sympathetic inflammation and ophthalmia. Again advised extirpation, and patient acquiescing, the operation was performed. Has been doing very well since that time.

The President desired to know the result of the administration of digitalis in the hands of the different members, and also the doses given.

Dr. Salm stated that he had given the tincture in 10 gtt. doses.

Dr. Cortelyou had taken Squibbs' fl. ext. in 10 gtt.

doses every four hours. Reduced the frequency of his pulse very perceptibly. Alternated the digitalis with ac-onite. Had used it afterwards in 10 gtt. doses, and always reduced frequency of pulse. Did not notice marked effect on urine.

Dr. Miller gave it formerly very frequently. Lately has confined its use to cases of kidney disease. Gives tinct. in 10 gtt. doses, continued for short periods only, as he thinks there is danger in its administration for long continued periods. Cites the case of an old man with hydrothorax to whom he had given digitalis with great relief. The following year it was prescribed by some one else in larger doses and for a longer time and the patient died from effects of medicine.

Dr. Conally has a patient with cardiac valvular trouble to whom he gave digitalis in 2 gtt. doses once or twice a day. No good result followed, when he increased the dose to 5 gtt., since which time the improvement has been marked.

About a year ago he had a case of anasarca in which he administered digitalis, but with no effect. Diuretic action of drug marked in present case; not marked in one of year ago.

The President asked Dr. Miller if he thought the digitalis was absorbed in those cases of delirium tremens where drachm doses of the tincture were administered? Dr. Miller thought not, but gave as his opinion that full doses of *time* were the best remedy in that disease.

The President then asked if the danger from the exhibition of the remedy had not passed when the diuretic action was once produced? Dr. M. does not use it after he obtained that result, that being the object of his giving it.

Dr. Salm said, that the question of the advantages and the disadvantages of the use of iodoform had been discussed at the last meeting, and that the odor had been thought to be the greatest disadvantage. Had seen the following formula in a journal purporting to obviate that odor:

R—Iodoform, gram.,	-	-	-	-	2
Faseline,	"	-	-	-	30
Olie Amaki,	-	-	-	-	6 gtt

Dr. Tood said that patient would rebel against use of above, as pain equalled that of nitric acid.

Dr. Low asked the result of treatment of epilepsy by iron, quinine and strychnine.

Dr. Salm instanced case in his practice where the convulsions had been relieved up to present twice by this treatment, combined with the bromides.

Dr. Low related case successfully treated.

Dr. Miller knows of several cases, and thinks it a curable disease, but not by medicine.

Upon motion, the Academy adjourned.

PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL OBSERVATION.

A. M. SUMNER, M.D., SECRETARY.

December 16, 1878. *Symmetrical Gangrene of the Extremities*.—Dr. J. Collins Warren read a paper on Symmetrical Gangrene of the Extremities, which was published in the JOURNAL, January 16th.

Dr. T. B. Curtis wished to notice in this connection how little attention is paid to French sources of investigation. While English and German authorities are as a rule pretty well ransacked, the French sources are overlooked.

Dr. F. W. Draper asked if the terms local syncope and local asphyxia were not simply appearances of the parts affected rather than true symptoms.

Dr. Warren answered that the absence of blood was termed syncope, while local asphyxia was an expression drawn from a term designating a condition popularly called "black in the face,"—black without actually becoming gangrenous.

Dr. Ingalls inquired if in the cases reported by Dr. Weir Mitchell the first symptoms of local syncope were alluded to or spoken of.

Dr. Warren said that in some of the cases they were alluded to, but in others they were passed by unnoticed. Where they had arrived at true gangrene the patients possibly had overlooked the earlier symptoms.

Dr. J. J. Putnam remarked that he had seen one marked case of local asphyxia, such as Dr. Warren had spoken of. It was in the person of a young man accustomed to out-of-door life, and otherwise perfectly healthy. The affection had already lasted a year or two. Whenever he went out of doors, even in summer, the hands, especially those portions supplied by the ulnar nerves, would turn white, afterwards again becoming of normal color after passing through the blue stage. It was also noticeable that the parts were painful, not as Dr. Warren had stated during the algid stage, but while the normal color was coming back. Vulpian raises the question whether these changes are due to disturbances of function of the local peripheral ganglia controlling the circulation, or to disturbances in the action of the vaso-motor centres, and considers the former explanation as a possible one for some cases. Dr. Putnam thought that both causes might exist, it being probable that the local and the central ganglia act and react on each other both in health and disease. In this connection he said that he had seen a case where, in consequence of injury of the brachial plexus, the whole hand had become cyanotic, while all the nerves of the arm were paralyzed. After a time the ulnar nerve, with its cerebral and spinal nuclei, recovered its control over the muscles supplied by it, and at the same time presumably over the blood-vessels of the outer portion of the hand. In consequence of this the color of that part of the hand became again natural, standing in marked contrast to that of the rest of the hand. Dr. Putnam's theory was that this resulted from a resumption of the controlling or inhibitory action which the spinal centres normally exercised upon the peripheral vaso-motor ganglia. Dr. Putnam also agreed with Vulpian that there seemed to be no reason for assuming contraction of the veins, besides that of the arteries, to explain these local asphixias.

Dr. C. P. Putnam remarked that he had seen a case of the so-called syncope and asphyxia of the fingers in a young lady of good health, where it had apparently been due to cold morning baths, as it had not occurred since the baths were given up. In the first stage the affected finger, gen-

erally the middle or third finger on either hand, became white and the skin wrinkled; soon after became intensely blue or purple, and finally recovered its color in an hour or two, with considerable tingling. The patient always found that the quickest way to get rid of an attack was to heat the back before a fire or by hot air from a furnace, though it seems likely that this was only because the whole body was most easily healed in this way.

Dr. C. H. Williams asked whether, as the ophthalmoscope showed diminution of the calibre, there was any deficiency of vision, and whether it was permanent.

Dr. Warren replied that there was intermittent disturbance, but did not think that the disturbance was permanent.

Dr. Hildreth inquired if there was any material difference of color, in these cases, from senile gangrene.

Dr. Warren said that authorities undertake to make out a peculiar shade in the local asphyxia, but after the gangrene appears there is very little difference. Dr. Warren thought that there was a difference in this respect between a case of embolic gangrene and the case reported, as seen by him at the same time.

Scarlatina—Dr. Minot remarked that he had seen a case which might be of interest. He was called to see an infant with scarlatina. Two months before it was born the mother and two children passed through a very severe attack of the same disease. It would certainly seem as though the infant was protected, but such was not the case.

Jaborandi—Dr. Webber wishes to state his experience with Metcalf's preparation of jaborandi. He had given it in twelve cases with no effect, and in one case with slight effect. He then had an infusion made with the dried leaves at the City Hospital, and obtained a marked effect in most cases.

Dr. Minot had had the same experience, but when he ordered three or four drachms of the leaves to a pint of water, and had the mixture boiled until it measured half a pint, and drunk hot, he had obtained marked effect.

PROCEEDINGS OF NEW ORLEANS MEDICAL AND
SURGICAL ASSOCIATION.

*Report of Special Committee on Yellow Fever and the best Measures
for Preventing its Recurrence in New Orleans.*

In view of the efforts now being made to establish either a system of absolute non-intercourse between New Orleans and the West Indies, or a quarantine so restrictive in its laws as to virtually suspend all business, systems which have only existed during barbarous ages, which have been abolished by the good sense and practical knowledge of civilized nations, and which to use the words of John Simon, are but "paper plausibilities," we, the members of the Medical and Surgical Association of New Orleans, in order that our own people and the people of this country (at large) may not be misled by our silence, thus taking it as an endorsement of these schemes as proposed, deem it proper to come forward and enter our protest against such measures and to suggest such means as we believe can alone render New Orleans a healthy city and free from epidemics of yellow fever.

We believe that yellow fever is a specific disease, depending upon specific cause, originally an exotic, now domesticated, and does not need a fresh importation either to produce sporadic cases or epidemics of yellow fever. This being our conviction, strengthened by the fact that quarantine *has never prevented* sporadic cases of yellow fever, nor ever will do it, we protest against the present system of quarantine or any one similar to it, or absolute non-intercourse, and can only endorse such a system of rational quarantine as shall cause least interference with our commercial relations and afford at the same time all the possible protection we can expect.

We believe that sanitary measures are of the most important, but are most neglected. After every epidemic committees have been appointed to investigate the causes of disease; their reports constantly speak of the terrible condition of the city in regard to sanitary matters. For the present year, the admirable report of Dr. Joseph Holt will

serve as an example. All the records, from that of Dr. Fenner, in 1846, to those of the present year, lead to the almost certain conviction that the disease is epidemic, and not imported, depending on certain ill-understood climatic conditions and certain well understood defects in sanitation; but the result was and we fear will be always the same, no improvement in regard to hygiene, but stricter quarantine. The sanitary condition of New Orleans for years past has been, and even at the present day, is so defective, that we are surprised that not only yellow fever, but other pestilences, do not exist all the year round; but so great is the force of habit, that some of the inhabitants have declared that filth was healthy and should not be disturbed. What will the people of this country say when we show them that New Orleans, with a population of over 225,000, and an area of many square miles, has only a few paved streets; the rest are mere mud pathways, impassable to vehicles after a heavy rain, and composed largely of the filth and garbage of the city?

The drainage of the city, if it can be called by that name, is so bad, that after a heavy rain, most of the rear and some of our principal streets are overflowed. Many of the lots are lower than the streets, and water naturally accumulates in them, and stagnates. The privies of the whole city are so badly constructed that mechanics and sanitary officers have stated that none, after having been built for two years, will retain their contents, but are in constant communication with the ground water, so that we can safely say that the whole city is one vast cesspool, and has one privy in community. As drinking water we use that stored for months in cisterns, which are rarely if ever cleaned; the impurities therein contained need no microscope for detection, and when a drought occurs, which is not frequent, the masses have no water for drinking or ablutions, except what is obtained from the gutters, which in such seasons are filled by the fire plugs—these gutters probably not cleaned for weeks or months.

The law prescribes that the offal and garbage of the houses shall be placed in a barrel or box in front of each house, and shall be removed before 10 A. M. In many of

the streets it remains for days and weeks, and when removed is simply carted a few blocks away, and deposited to fill a hole in the middle of the street, or a lot of ground in the heart of the city. This was especially conspicuous during the past summer, notwithstanding the repeated complaints of the Board of Health.

Our levees, as every one knows, are in the same miserable condition, filled with refuse and decomposing dejecta of all kinds, tainting the entire city.

We, therefore, recommend as absolutely necessary:

1. Proper drainage, underground sewerage, and the total abolition by law of the present system of privies.

2. A copious supply of pure water.

3. Paving of all the streets, and the filling up of all lots with river sand or gravel, these to be raised above the level of the street.

4. That instead of the present system of depositing the filth and offal collected by scavengers in the middle of the street, in empty lots, or in the rear of the city, the authorities shall have all such filth and offal thrown into the current of the river, below the city, by proper barges, such as are at present used by the vidangeurs of the city.

5. We especially recommend the taking of all proper measures with regard to the sanitary regulations of our graveyards, and such improvements in the system of burial of the destitute poor by the city as will prevent the nuisances and scenes which were described in the report presented by Dr. Holt to the city authorities and to the Board of Health in March, 1877.

F. LOEBER, M.D.,

THOS. LAYTON, M.D.,

I. L. CRAWCOUR, M.D.

DETROIT ACADEMY OF MEDICINE.

November 12th, 1878.

Dr. Noyes reported an interesting case of spontaneous iridocyclitis, followed by sympathetic ophthalmia.

The case, he said, was a confessedly rare one, since sympathetic troubles, as a general rule, are the result of

some traumatic injury. Dr. McKenzie, who first described the disease, sympathetic ophthalmia, about thirty-five years ago, says that "lacerated and punctured wounds, involving the iris and ciliary body, are the most active and frequent cause of this disease, and however slight the present symptoms may be, it is one of the most dangerous inflammations to which the organ of vision is exposed; it is also remarkable that the eye which suffers sympathetically is generally more completely destroyed than the one which received the injury." Such is the case with this patient; although the inflammation was not of traumatic origin, the danger in the latter case is just as great. The sympathetic trouble made its appearance about six weeks after the first attack; when the patient came under his observation, the right eye (the first affected) had already passed through the active stage of inflammation; the pupillary margin was firmly adherent to the lens (synechia posterior.) A solution of atropia (6 grs. to 3j) proved ineffectual in breaking up the adhesions. The sympathetic trouble was fully developed; no adhesions had as yet taken place in the pupil of the left eye; the inflammation, which now involved the whole interior of the globe, was actively combatted by the abstraction of blood from the temple, and by the instillation of atropia, but there appeared little hope of staying the disease; practically, there was little or no vision in the left eye. With the right, which is gradually improving, the patient can now read No. 5 Jaeger's test types.

Unquestionably, in this state of affairs, subsequent treatment is to be directed to improving and preserving the vision of the right, or the eye first affected, and this may call for grave surgical treatment. For instance, should the left eye, besides being useless for vision, offer any hindrance to a complete recovery of the fellow eye, from reflex irritation, it may become necessary to remove it.

Dr. Cleland reported the details of a case of suppurative pericarditis. No one offering to make any remarks upon the subject, Dr. Andrews was called upon.

Dr. Andrews.—I have never met with such cases, and,

therefore, can say nothing from my personal observation in the matter. I have had one patient whose pericardium I have always regretted not having tapped, for in the post mortem examination, we found within it more than two gallons of clear serum. But as the dullness extended over the whole front of the chest, the diagnosis of a large consultation of medical men was enlargement of the liver.

Dr. Cleland—Last Tuesday, Dr. Thomas removed a few deciduous teeth from the mouth of a child, but towards morning, Wednesday, the hemorrhage from the cavities became so great that Dr. Hoke was called in to check it. Wednesday afternoon, the blood having started again, with the assistance of Dr. E., Dr. H. etherized the child and cauterized the cavities. Again, that night, hemorrhage set in, even to syncope, and being sent for, I checked the flow by passing a red-hot needle up the cavity. On the separation of the slough, the blood again commenced to flow, and thus it has gone on until this morning, since which time the wound is quiescent. The child nearly died once before from the effects of a nasal hemorrhage. An uncle of the same person died from a hemorrhage from the mucous membranes.

Dr. Walker—A short time ago, I reported the details of an operation, which I had performed two weeks before, of an extirpation of the rectum on account of cancerous disease. As I told you before, I was called to see the patient by Dr. Carsten. The patient stayed in the hospital six weeks after the operation, and departed, feeling very well. He makes use of a quantity of oakum, held in place by a bandage, to replace the function of his lost sphincters. He is now working at his trade in a bakery. I cannot insist too much upon the value of irrigation in such cases, for I believe it is the means of preventing blood-poisoning. Three weeks since, I assisted at another operation of the same kind, and the patient is now doing very well. In this man, however, the sphincters were not removed.

On motion, the meeting was adjourned.

E. A. CHAPOTON, Secretary.

Selections.

NOTE ON INTRA-UTERINE MEDICATION AND STERILITY.

BY W. S. PLAYFAIR, M.D., F. R. C. P.

I have been much interested by Mr. Wigglesworth's case of occlusion of the os and cervix uteri produced by the application of fuming nitric acid, published in the last number of the *Obstetrical Journal*. It certainly teaches a lesson of caution in the use of that remedy which is not needless, since it has been applied by some, especially in Ireland, with a freedom which has always seemed to me somewhat rash. My own experience with regard to it is not very great. I have, however, used it in many cases of severe menorrhagia, associated with endo-metritis, frequently with very remarkable benefit, and, I am bound to say, without ever having seen any ill effects follow. My object, however, in writing this note is to comment on the latter part of Mr. Wigglesworth's paper, in which he propounds the theory that the application of caustics to the interior of the uterus may be followed by sterility. If this were the case it would, no doubt, be a strong objection to their use. It would be interesting to hear the experience of others on this point. So far as my own goes it is directly opposed to Mr. Wigglesworth's. I may claim to have paid a good deal of attention to this matter, having communicated to the meeting of the British Medical Association, at Leeds, in 1869, a paper on the treatment of chronic uterine catarrh, which I believe was the first in this country in which systematic intra-uterine medication was advocated, and subsequently a series of lectures on "Intra-Uterine Medication in the Treatment of Chronic Uterine Catarrh." For the past ten years scarcely a day has passed on which I have not practiced intra-uterine medication in public or private practice, possibly riding my own hobby a little hard, as many of

us are apt to do. Not only have I never seen anything in the least approaching to Mr. Wigglesworth's case, but very rarely indeed anything beyond the merest transitory irritation. Indeed, I am as sure as I can be of any fact in medicine, that there are a large class of otherwise intractable cases, which yield, I do not say easily, but certainly, to properly conducted treatment of this kind. So far from having any reason for thinking that it tends to produce sterility, my own experience would lead to the very opposite conclusion. It has been a matter of every day experience with me to meet with cases of chronic endometritis, with sub-involution, after a labor, perhaps years before, in which intra-uterine medication has been followed so rapidly by impregnation, as to leave no doubt of the result being due to the removal of the cause which led to sterility. In cases of this kind there is generally a large, bulky and possibly flexed uterus, with an abraded cervix, a patulous cervical canal, and much glairy mucus pouring from it. So commonly have I found pregnancy followed the cure of these conditions, that I have over and over again remarked to patients, who have expressed themselves as being rather aggrieved at finding themselves in the family way, that I had come to consider pregnancy as the nearly certain result and proof of a satisfactory cure. Only this afternoon, I happened to see a patient with Mr. Tait, of Highbury, whose case affords a good illustration of this. She had been a great sufferer from conditions very similar to those mentioned above, for four or five years, during which she never became pregnant. A few months ago she was treated by intra-uterine medication with carbolic acid with marked benefit, and now she is undoubtedly pregnant.

It may well be asked, why should such treatment produce sterility? It is, no doubt, very desirable that we should possess accurate information, which we do not now do, as to the state of the uterine mucous membrane in such cases, and the caustics upon it. Pending the acquisition of such knowledge, I think it fair to assume that the result of such application is similar to that on the mucous membrane covering the cervix, and this is open to our

inspection. Any one can satisfy himself that after swabbing a florid, abraded, granular, and bleeding cervix several times with a suitable application, it assumes the smooth, velvety appearance it ought to have in the healthy state. What reason is there to doubt that something similar occurs in the uterine mucous membrane, since its treatment is generally followed not only by the relief of pain and other local symptoms, but by healthy menstruation and the arrest of the glairy mucous discharge so characteristic of its morbid state? Nor, theoretically, is it at all difficult to understand why abundant catarrhal discharge from the uterus should prevent impregnation. Unless, therefore, some more valid evidence of intra-uterine medication producing sterility is brought forward than Mr. Wiglesworth produces, I shall continue to hold the opinion I had formed, that in a large proportion of cases of chronic endo-metritis and uterine catarrh it is one of the best means of removing it.

I do not enter into the relative merits of the various applications to be used, although I venture to quote a passage from my lectures on this subject to show why, as I still believe, carbolic acid is the best, and free from the risk of producing the result, which followed the use of nitric acid in Mr. Wiglesworth's case. "There are certain properties, too, possessed by carbolic acid, which render it preferable to all others as an intra-uterine application. Neumann, of Vienna, has shown that when applied in a tolerably concentrated form, such as I use, it causes the tissues to shrink and mummify, but they never swell; nor does it produce an *eschar*, as do the stronger caustics, such as *potassa fusa*, the acid nitrate of mercury, or even nitrate of silver. We can, therefore, use it freely without any risk of producing contraction of the canal of the cervix—a result which has followed the use of other agents. Certainly no case has come under my observation where the slightest approach to such a result has followed the use of carbolic acid.

Although foreign to the immediate object of this note, I may take this opportunity of saying that increased experience has taught me that intra-uterine medication is

best practised within the ten days immediately following the cessation of a period, probably because the deeper layers of the uterine membrane are then reached in consequence of their denudation during menstruation. If practised towards the end of the menstrual interval it is sometimes apt to bring on menstruation prematurely. Practically, I find that two applications, at an interval of three or four days from each other, during the time I have indicated, are all that is required.

Editorial.

ATLANTA MEDICAL COLLEGE.

The commencement exercises of this institution took place on Tuesday night, the 4th of March, before a large and fashionable audience.

After prayer by Rev. Mr. Gwinn, of the First Baptist Church, thirty-five who had passed a satisfactory examination before the faculty, were presented and had the degree of Doctor in Medicine conferred upon them by Col. William L. Mitchell. Three physicians in good standing were admitted *ad eundem gradum* in the college. Their names are as follows:

W. G. Adair, H. D. Allen, F. Beals, J. S. Bennett, B. F. Braselton, F. J. Brooks, J. F. Brooks, W. J. Chapman, E. S. Davis, J. A. Gray, R. R. Harden, J. N. Hogg, Frank Holland, W. W. James, W. B. Leake, T. A. McLarty, J. P. McWilliams, J. T. Mandeville, J. J. Morgan, F. M. Newman, A. G. North, L. H. Peebles, M. V. Pool, J. A. Putnam, A. L. Rayle, J. W. Riley, J. L. Selman, W. L. Sikes, J. T. Slaughter, J. M. Spinks, H. B. Stewart, C. T. Stovall, R. H. Taylor, C. W. Vanvalkenburgh, J. L. Walker.

Ad eundem—Javan Bryant, M.D., J. W. Maydon, M.D., Maurice Salm, M.D.

Col. Boynton, of Griffin, was then introduced, and de-

livered the valedictory address to the graduating class, as published in the present number of this JOURNAL. This was responded to on the part of the graduates by Dr. W. W. James, one of their number. This will also be found in full on our pages.

The following prizes were awarded by the faculty and presented by Rev. Mr. Gwinn:

By the faculty for the highest grade of proficiency as exhibited in the general examination, a case of surgical instruments, which was awarded to Dr. J. A. Gray. Honorable mention was also made of Drs. R. H. Taylor, C. T. Stovall and L. H. Peebles.

Prof. J. G. Westmoreland offered a medical case for the best thesis on the action of remedies, which was awarded to Dr. J. F. Brooks.

Prof. W. F. Westmoreland offered a transfusion apparatus for the best report of the surgical clinic, which was awarded to Dr. H. D. Allen.

Prof. V. H. Taliaferro offered a set of forceps for the best examination in his department, which was awarded to Dr. R. H. Taylor.

Prof. Calhoun offered an ophthalmoscope for the best report of the eye and ear clinic, which was awarded to Dr. C. T. Stovall.

Prof. Johnson offered a case of instruments for the best thesis on the operative treatment in his department, which was awarded to Dr. J. A. Gray.

Prof. Logan offered a gold medal for the best thesis on the relation of chemistry to the science of medicine, which was awarded to Dr. H. B. Stewart.

We publish the following from the *Bulletin of the Public Health*, issued by John M. Woodworth, the Surgeon-General U. S. Marine Hospital Service, under the National Quarantine Act of 1878, for the week ending February 22d, 1879:

OFFICE SURGEON-GENERAL M. H. S.,
WASHINGTON, Feb. 26, 1879.

Boston.—Week ended Feb. 22. Deaths from all causes, 139, an annual ratio of 20 per 1,000 of the population; 14

cases of scarlet fever, 6 deaths; 20 cases of diphtheria, 7 deaths. Bronchitis caused 7 deaths, pneumonia 10, phthisis 31.

Providence.—Week ended Feb. 22. Total deaths 29; annual ratio 15; 1 death from diphtheria, 2 from scarlet fever.

New York.—Week ended Feb. 22. Total deaths 551; annual ratio 26.3; 3 deaths from enteric fever, 50 from scarlet fever, 15 from diphtheria, 18 from croup, 91 from pneumonia and bronchitis, 92 from phthisis.

Brooklyn.—Week ended Feb. 22. Total deaths 210; ratio 19.34; 83 cases of scarlet fever, 9 deaths; 40 cases of diphtheria, 11 deaths; 3 deaths from enteric fever, 31 from acute pulmonary diseases, 26 from phthisis.

Buffalo.—Week ended Feb. 22. Total deaths 36; annual ratio, 13; 4 deaths from scarlet fever, 5 from diphtheria, 2 from enteric fever, 16 from phthisis.

Philadelphia.—Week ended Feb. 22. Total deaths 353; annual ratio 21.2. Enteric fever caused 10 deaths, scarlet fever 7, diphtheria 15, whooping cough 4, acute pulmonary affections 55, phthisis 55. "Pulmonary affections prevalent, diphtheria increasing."

Pittsburgh.—Week ended Feb. 22. Total deaths 45; annual ratio 16; 1 death from enteric fever, 1 from scarlet fever, 6 from diphtheria.

Baltimore.—Week ended Feb. 22. Total deaths 131; annual ratio 18.66. Enteric fever caused 3 deaths, scarlet fever 3, diphtheria 3, croup 6, acute pulmonary diseases 22, phthisis 29.

District of Columbia.—Week ended Feb. 22. Total deaths 75; annual ratio 24.3. Enteric fever caused 2 deaths, scarlet fever 6, diphtheria 1, acute pulmonary diseases 13, phthisis 13.

Hudson County, N. J. (including Jersey City and Hoboken).—Week ended Feb. 22. Total deaths, 71; annual ratio 19.6. Scarlet fever caused 6 deaths, diphtheria 4, acute lung affections 13, phthisis 8.

Richmond.—Week ended Feb. 22. Total deaths 29; ratio 18.20; 6 deaths from scarlet fever.

Cincinnati.—Week ended Feb. 22. Total deaths 101;

annual ratio 19; 13 deaths from scarlet fever, 1 from diphtheria.

St. Louis.—Week ended Feb. 22. Total deaths 111; annual ratio 21.4. Enteric fever caused 2 deaths, diphtheria 1.

San Francisco.—Week ended Feb. 14. Total deaths 85; annual ratio 14.5. Enteric fever caused 2 deaths, diphtheria 3, pneumonia 16, phthisis 8.

Mobile.—Week ended Feb. 22. Total deaths 21; annual ratio 27. Acute lung diseases caused 4 deaths.

New Orleans.—Two weeks ended Feb. 23. Total deaths 187; annual ratio 23.4. Diphtheria caused 3 deaths, acute lung diseases 29, phthisis 39.

Island of Bermuda.—In a population of 15,300, during the six weeks ending Feb. 18, there were 15 deaths, over 50 per cent. being of persons over 80 years of age.

Havana.—Week ended Feb. 22. Yellow fever caused 1 death, small-pox 13.

Small-pox is very prevalent in Cuba, Brazil, Dublin, London, St. Petersburg, and the ports of India, and less so at Buda Pesth, Vienna, Paris and Barcelona.

IN MEMORIAM.

Died, at his home, in this city, November 9, 1878, CHARLES RAUSCHENBERG, M.D., of congestion of the bowels, after a brief illness.

Pursuant, therefore, to the instructions of the Atlanta Academy of Medicine, the committee appointed to prepare suitable resolutions expressive of our sense of loss in the death of our esteemed friend and fellow member, beg leave to submit the following report:

Resolved, That in the death of Dr. Charles Rauschenberg this Academy has lost an earnest, faithful, zealous and able member.

Resolved, That in his life of studious devotion to the principles and practice of the great healing art, he has left to us an example worthy of imitation.

Resolved, That a page in the records of this Academy be dedicated to his memory, and that these resolutions be transcribed thereon.

Resolved, That a copy of this report be sent to the family of the deceased, and that a copy be furnished the ATLANTA MEDICAL AND SURGICAL JOURNAL for publication.

Very respectfully submitted,

JAS. B. BAIRD, M.D., Ch'm Com.

WE find the following in the Cincinnati *Lancet and Clinic* of January 25th: "The village of Atlanta, Georgia, finds itself possessed of more medical talent than can be accommodated in one Medical College. A charter for a new College has, consequently, been sought, and will doubtless be soon granted."

Now, the slur in the above article was evidently intended for the medical profession, but comes in very bad taste from a city dependent, in a considerable measure, upon this "*village*" for the sale of her surplus commodities. Jealousy should not rankle in the hearts of a dependent people.

EDITORIAL CORRESPONDENCE.

GAINESVILLE, GA., Feb. 20, 1879.

Dear Dr. J. G. Westmoreland: As the nosology pathology and treatment of that terrible malady, diphtheria, now becoming common with children, is exciting much attention throughout the medical world, I contribute my mite. Each writer in regular order differs from others in treatment, and this is proof that the true nosology and pathology of the disease is yet a mooted question; and hence the treatment is different by every physician who may be called upon to treat the disease. In '58-9 and again in '67, at which dates it was quite prevalent in Gwinnett county, I followed the treatment suggested by the best practical medical men of the country, taking it for granted that it was a local disease of the tonsils. This local treatment was very unsatisfactory. By close observation I was forced to the conclusion that the disease was constitutional, manifesting itself by local lesions. I

changed my treatment in accordance with this view of the disease, which change I have not yet repented of. In 1877 it prevailed to an alarming extent in and along the lines of Hall and Gwinnett counties. I prescribed for a great many cases, and not one case that used the following prescription ended fatally :

To a child six years old I gave six grains of sulphate of quinia and four drops of hydrochloric acid every hour until the symptoms gave way, diminishing or increasing according to the age of the patient. In a large majority of cases the grave condition was improved, and the little patient passed into a quiet, refreshing sleep.

R—Sulph. of quinia gr. 48
Hydrochloric acid m. 32
Water fʒj.

Mix.

Sig.—One teaspoonful to be given every hour until the grave symptoms give way.

The following is the easiest way to give the medicine and more palatable for a child :

R—Sulph. of quinia gr. vi.
Acid hydrochloric m. iv.
Honey, half teaspoonful.

Mix.

Sig.—Repeat the dose every hour in severe cases until the symptoms give way.

Yours truly,

A. J. SHAFFER, M.D.

BIBLIOGRAPHICAL.

INDEX TO ORIGINAL COMMUNICATIONS in the Medical Journals of the United States and Canada for 1877. Classified by subjects and authors. Compiled by WM. D. CHAPIN, N. Y. Price \$1.

This little volume of forty-seven closely-printed pages will be found a convenient reference book to those who may desire to refer to some particular article. In addition to the United States and Canada journalistic literature, the "Index" of 1878, now in active preparation, will embrace that of Great Britain and Ireland. This addition will not increase the price, which will remain one dollar.

DIPHThERIA—ITS CAUSES, PREVENTION AND PROPER TREATMENT. By J. H. KELLOGG, M.D., Member of the Am. Pub. Health Ass'n; the Am. Society of Microscopy; the Michigan State Med. Ass'n; author of numerous works on health, etc., etc. Published by the Good Health Publishing Co., Battle Creek, Mich.

Diphtheria is a disease of widespread fatality, and any information that may be presented by careful observers should be read by both practitioners and patients. This monograph treats of the history, pathology and treatment of the disease, and should be read by all desirous of obtaining detailed information on the subject of which it treats.

NEW AND ORIGINAL THEORIES OF THE GREAT PHYSICAL FORCES. By HENRY RAYMOND ROGERS, M.D. Published by the Author.

This contribution to solar and terrestrial physics is a philosophic dissertation upon the influences and relations of "the forces" to the various physical phenomena and their causation of disease. Some of the premises are rather unique, probably, but still a perusal of the work will prove interesting.

PAMPHLETS RECEIVED. — The Brazillian Tea (Cha Mate), erroneously called Paraguay Tea. By Chas. Wm. Zaremba, M.D., member of the Academy of Natural Sciences, Philadelphia, etc., etc.

Report of investigations into the Pathology of Diphtheria, conducted by Edward Curtis, M.D., and Thos. E. Satterthwaite, M.D., N. Y. 1877.

* Circular of information relating to the Pennsylvania Training School for Feeble-Minded Children. Westchester, Pa.

Proceedings of the Medical Society of the county of Kings. Monthly report. Brooklyn, N. Y.

The first annual report of the Presbyterian Eye and Ear Charity Hospital, No. 77 E. Baltimore street, Baltimore, Md. 1878.

Twenty-sixth annual announcement Medical Department University of Vermont. 1879.

Memorandum of the American Public Health Association on legislation affecting the public health.

Report of the Special Relief Committee, I. O. O. F., of Memphis, Tenn. 1878.

Transactions of the Detroit Medical and Library Association. January, 1879.

Bulletin of the Public Health, issued by the Surgeon General U. S. Marine Hospital Service, under the National Quarantine Act of 1878.

EXCERPTA.

DAMIANA (*Turnera Aphrodisiaca*).—Dr. Summerlin, of Sunhill, Georgia, states that having seen this drug recommended for its aphrodisiac virtues he determined to give it a trial in the case of a patient, aged twenty-seven, who applied to him for treatment. The patient stated that a few years previously his right testicle became inflamed, compelling him to remain at home several days. After the swelling left, his testes became atrophied and tender to the touch. He had previously practiced onanism. The sexual desire had nearly left him. On examination the left testis was found to be soft and very small, the other normal. He was placed upon the usual treatment—nourishing food, nux vomica, iron and cantharides; but he did not appear to improve. He was then ordered to take one drachm of fluid extract of damiana three times a day. In a short time the testis began to enlarge and lose its sensitiveness. In the course of a month it had gained its normal size, and its functional activity was restored.—*Virginia Medical Monthly*.

OPIUM HABIT AND AMYL NITRITE.—Dr. Leyman (*Boston Med. and Surg. Jour.*) has successfully used *amyl nitrite* in insomnia consequent upon suddenly discontinuing the opium habit. Two or three whiffs, the *flushing of the face being the criterion*, were usually sufficient, being followed by refreshing sleep.

LACERATION OF THE CERVIX A CAUSE OF STERILITY, MISCARRIAGE, ETC.—This lesion is so common a cause of sterility that I always suspect its existence whenever a guileless woman stops bearing after her first labor. The sterility is due partly, of course, to the disorders, the flexions, and dislocations of the womb which, as I have shown, follow such an injury. But it is due also to the acidity of the discharges, which kills the spermatozoa, or to the viscous plug of mucus which often closes the remnant of the cervical canal. Again, the deep notches in the cervix hinder that suction action of the womb during the sexual orgasm, just as the split nozzle of a syringe cannot suck up a thin stratum of fluid. Further, the cervical canal denuded of its epithelium presents such a barrier to the migration of the spermatozoa as a desert does to the advance of an army. But these are not the only evils following such an injury. The weakened retentive power of the cervix often leads to repeated miscarriages. This I have known to happen over and over again. Often have I been obliged to puncture or to cross-hatch a brood of retention cysts which aided in the eversion of the mucous lining. Once I removed a sessile polypus as large as a pigeon's egg, which grew out of a cluster of exposed Nabothian glands. Further, I feel very sure that many an epithelial cancer of the cervix starts from such a constantly chafed and fretted surface; for, in my experience, a cancer of even a movable womb with a ragged notch on one side of the cervix apparently eaten down to the vaginal junction, is no uncommon event.—Goodell, *Penn. State Society's Transactions*.

SKIN GRAFTING EN MASSE.—At the sixth congress of the German Surgical Association, Dr. Von Zehender presented a case of a boy, five years old, upon whom he had operated for an ectropium, involving both upper eyelids, resulting from ulceration of supra-orbital structures, due to caries of frontal bone. A piece of skin six centimetres long and three centimetres wide ($2\frac{3}{4}$ by $1\frac{1}{4}$ inch) was removed from the upper arm, the subcutaneous areolar and connective tissue carefully scraped off, until it was smooth, thin and flexible like glove leather. This was then laid upon the

clear granulating surface of the eyelids, and the eye was closed for four days by five cat-gut sutures passed through the edges of the lids. The transplantation was entirely successful. While usually taught that sections of skin for grafting should not exceed one square centimetre, this piece contained eighteen square centimetres.—*Centralblatt für Chirurgie.*

ANOMALOUS TWIN PREGNANCY.—The following case being of some rarity in its details and occurrence, I venture to submit it, thinking it might interest those more especially engaged in obstetric practice.

In twin pregnancy, the development of the children does not always advance *pari passu*, as the following case will illustrate. On October 18th, I attended a Mrs. P., aged 26, in her first parturition, the labor being tedious, and the head remaining a long time in the cavity of the pelvis. There being inertia from exhaustion, I applied Ziegler's forceps and delivered without laceration or difficulty. Five minutes afterwards, I removed the placenta by traction on the funis. There was no hemorrhage of importance. The following day the patient seemed very comfortable, with the exception of a sensation of weight in the region of the bladder, whereupon I introduced a female catheter and drew off a pint and a quarter of urine. On the 30th the patient complained of nothing, and felt tolerably well; so likewise on the morning of the 31st. During the afternoon of this day, I was sent for to see a shrivelled, wasted fœtus, with funis and placenta all complete, which was expelled four days after the extraction of the full-grown, living, male, healthy child. The hæmorrhage was but slight, and there was scarcely any pain.

This fœtus was evidently a twin, conceived, no doubt, at the time of its brother, and had, it appeared, developed normally up to about six months, when it ceased to grow, and became gradually flatly compressed and shrivelled, but not putrid, having at the time of expulsion a faint odor, and being of a light flesh color.

The causes adduced for the death of one fœtus are, in the main, four: 1. One child appropriates to itself all the

nourishment, at the expense and destruction of the other; 2. Pressure of the uterus and one fœtus on the other; 3. Disease originating in the fœtus or placenta; 4. Separation of placenta (accidental) from the uterine wall. In this case there would be, as a rule, hemorrhage, slight or excessive, during pregnancy..

The case in point seems to me to be referable to the second cause, viz., that of pressure; for there was no history of syphilis—no history of hemorrhage during pregnancy, or of a fall or concussion of any kind. On the contrary, the patient had especially good health during pregnancy; no old clots were met with at parturition. The placenta of the dead child was somewhat tough and pale, shrivelled, entire; there was no trace of lesion about it. It remained adherent to the uterus until the time of expulsion *per vaginam*, which was accompanied with slight hemorrhage. The patient had no subsequent troublesome symptoms, involution proceeding normally.

How to COUGH.—To some persons, coughing is harmless, but to others it is fraught with many dangers. It is, therefore, important to teach those liable to be injured by too severe or prolonged efforts at coughing how they may accomplish their purpose easily, safely and quickly. Dr. J. M. Fothergill, (*Phil. Med. Times*, Dec. 7, 1878,) says: "It must be insisted upon that the chest be well filled with air before the cough is let loose; that is, the reflex act must be inhibited by the exercise of the will, until the chest be well filled with air before the cough is let loose. Such full inspiration is effective not only in removing the source of irritation, but it usually causes other masses of mucus and charcoal to slide from their seat, and thus to set up further cough for their removal. But, if the full inspiration plan be followed, these masses are readily and quickly expelled." Of course these directions are of use only in such coughs as are for the purpose of removing some offending matter from the air passage.

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ESTABLISHED IN 1855.

VOLUME XVI.

MARCH, 1879.

NUMBER 12

ATLANTA
MEDICAL ^(AND) SURGICAL
JOURNAL.

MONTHLY: THREE DOLLARS A YEAR IN ADVANCE.

EDITOR:

J. G. WESTMORELAND, M.D.,

Professor of Materia Medica in Atlanta Medical College.

H. H. DICKSON, PUBLISHER.

PAX ET SCIENTIA, SED VERITAS SINE TIMORE.

ATLANTA, GEORGIA:

H. H. DICKSON, BOOK AND JOB PRINTER AND BOOKBINDER.
1879.

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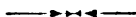
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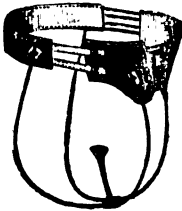
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We can commend this preparation to the Medical Profession as being the most important remedy ever brought to their notice in all cases of Dyspepsia and imperfect nutrition, when the system needs invigorating and replenishing. It will be found, we believe, a perfect remedy in Vomiting in Pregnancy, Cholera Infantum and wasting diseases of children, and in Constipation and Chronic Diarrhoea resulting from mal-nutrition. It will agree with the most irritable stomach.

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Aromatic Cod Liver Oil, with Hypophosphites,

Devoid of all unpleasant fishy odor and taste, and containing five grains of the combined Hypophosphites of Lime, Soda and Potassa in each tablespoonful.

Aromatic Cod Liver Oil, with Phosphate of Lime.

This latter is in the form of a palatable emulsion, one-half of which is pure Cod Liver Oil combined with Phosphate of Lime, in the proportion of 20 grains to the fluid ounce of emulsion.

~~See~~ Catalogues giving composition, doses, etc., of all our preparations mailed to Physicians by applying to

GEORGE J. HOWARD & CO., Wholesale Druggists, Atlanta, Ga.,
Or **HUTCHISON & BRO., Pharmacists, Atlanta, Ga.**

CASCARA SAGRADA.

(RHAMNUS PURSHIANA.)

THE CHARGES AGAINST IT WITHDRAWN.

A statement appeared in the editorial columns of the *Pacific Medical and Surgical Journal* some time since, commenting unfavorably on the therapeutic value of certain new remedies recently introduced to the profession through us, and particularly on Cascara Sagrada, which it also intimated was presented under a fictitious name. These statements, harmless enough in themselves, have been widely circulated by parties inimical to us, and special reference has been made to the assumed fictitious name, with the intention of conveying to the minds of the profession throughout the country, that we have been guilty of deliberate fraud by inducing physicians to use secret remedies which had no remedial value, and whose names originated with us. It is therefore with peculiar pleasure that we have noticed in the January number of the publication referred to, the following note on Cascara Sagrada. It will be observed that Dr. Gibbons expressly states that it was not intended to deny medicinal virtue to the plants in question, and further that Cascara Sagrada is the common Spanish name of Rhamnus Purshiana, thus effectually disposing of the matter:

From Pacific Medical and Surgical Journal, Dr. Henry Gibbons, Ed., Jan., 1879.

"Cascara Sagrada" Again.

We notice that the article published in our October number, from the pen of Dr. W. P. Gibbons, referring to certain "new remedies," so-called, of California origin, has been misrepresented in some quarters as denying medicinal virtue to the plants in question. This was not its design, nor did the therapeutic value of the remedies enter into consideration. The object was to expose the deception of introducing preparations of old remedies under new names, and claiming originality without deserving it. Several of the plants in question are really valuable.

Whilst on the subject, we will correct an error in spelling. Cascara (bark) Sagrada (sacred) is the common Spanish name of the Rhamnus Purshiana, and means simply sacred bark. The adjective should end in a and not in o, as it is commonly spelled. The old Spanish or Mexican population of the coast had a number of medicinal herbs which they employed in default of official plants. Not knowing the botanical names, common names were given, indicating their supposed good qualities. "Yerba Santa" was holy herb; "Yerba Buena" good herb, and so on.

It will thus be seen that while its remedial value is taken for granted, the fact is also admitted that Cascara Sagrada is the common name of the Rhamnus Purshiana, and as such was properly introduced to the profession. The testimony regarding the efficacy of Cascara Sagrada increases every day, and there can be no doubt that it is fully as valuable as the first reports indicated.

THERAPEUTICAL APPLICATIONS.

Carefully conducted experiments have demonstrated that no small share of its physiological action is on the liver, and that in addition to its tonic properties it is an efficient cholagogue. Unlike most laxatives, Cascara causes very little peristaltic action of the intestines, and hence its administration is followed by the minimum of griping or pain, a great desideratum in practice. These properties will suggest to the intelligent physician a wide field for the application of the drug, and experience has already demonstrated its value in all affections in which atony of the stomach and bowels has been a leading condition.

CAUTION TO PHYSICIANS.

Until very recently the agents of certain manufacturing houses in Cincinnati and New York have been representing falsely to physicians that our fluid extract Cascara was a compound of Buckthorn Bark (Rhamnus Frangula) and Strychnia, and that no such plant as Cascara Sagrada was known. The malicious intention of these parties is seen in the fact that they are now themselves freely offering what purports to be a fluid extract Cascara Sagrada at reduced rates, and we are informed that preparations containing Buckthorn Bark and Strychnia have actually been sold under the name of Fluid Extract of Cascara Sagrada by certain unscrupulous parties. Cheap preparations should therefore be regarded with suspicion.

Our own supply of the crude drug has been carefully selected, and is known to be genuine. We invite physicians to specify our brand when ordering, and to see that our label and capsule appears on each bottle.

Send for circulars giving all the facts regarding Cascara Sagrada, and editorial comments from different medical journals.

PARKE, DAVIS & CO.,

DETROIT, MICHIGAN.

For sale in Atlanta by Hunt, Rankin & Lamar; in Philadelphia by W. D. Elliott & Co.; in Baltimore by W. H. Brown & Bro.; in Dallas, Texas, by Betterton, Son & Co.
Feb.—79-ly

PHOSPHOROLE.

PHOSPHORUS and COD-LIVER OIL

have now an established position throughout the civilized world as important therapeutical agents. A perfect combination of the two has long been a desideratum, since they are both of value in the same disorders, while the cases in which one is demanded and the other contra-indicated are exceedingly rare.

The combination in PHOSPHOROLE has the twofold advantage of furnishing the best possible form for the administration of phosphorus, and a more effective form for the administration of cod-liver oil.

With regard to the former, it has been decided by the highest chemical and medical authorities that phosphorus should be administered in a free state, and in a vehicle which ensures its perfect diffusion, its absolute unalterability, and, as far as possible, its prompt assimilation without the gastric irritation to which the ordinary methods of exhibiting the agent give rise. It is well known that pills, emulsions, solutions in ether, chloroform, vegetable oils and resin, etc., have all failed to fulfill one or more of these conditions. Even an ordinary solution of phosphorus in cod-liver oil would not answer the purpose in all respects. We claim, however, that PHOSPHOROLE completely satisfies all the conditions. From the method of preparing it, in an atmosphere of dry carbonic acid, the phosphorus is entirely dissolved without oxidation, and by our mode of manipulation a positive uniformity of strength is ensured. It is then promptly bottled and sealed, and its stability and permanence thus secured. The exact amount of phosphorus in each dose is known, its efficiency is ensured, and the irritant effects upon the stomach are reduced to a minimum by the blandness of the oil. As a means then of administering phosphorus in the many cases in which it is indicated as a nervous tonic and stimulant, it is claimed that PHOSPHOROLE is the best attainable in the present state of our knowledge.

The value of cod-liver oil in phthisis is so familiar to the physician that it is needless to dwell upon it. But the value of phosphorus is also universally recognized in this disease, especially when complicated with nervous derangements. The combination of the two therefore furnishes a more effective form for the administration of cod-liver oil in the great majority of cases in which that remedy is indicated, and one which will at once commend itself to the profession.

A dose of two teaspoonfuls of PHOSPHOROLE contains $\frac{1}{10}$ of a grain of phosphorus. This dose, when given after a meal, is effective, and not very liable to interfere with digestion. Phosphorus is cumulative in its action, and should be administered with watchful care. About $\frac{1}{10}$ grain is considered the largest safe dose, and we rarely need go higher than $\frac{1}{20}$ or $\frac{1}{10}$ of a grain. At the very first appearance of the smallest gastric derangement, the exhibition of phosphorus should be stopped.

PHOSPHOROLE is handsomely put up in pint bottles only, and may be obtained at all first-class druggists throughout the United States.

Descriptive Circulars furnished upon application.

Correspondence with Physicians solicited.

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